SQL CODE

```
-- two tables are referenced in this code, table1 (your data) and table2 (other data)
-- Program Name
/*This program will merge two files and select the best matches for the records
using social security number, Last name, First name, date of birth, sex, and first, middle and
last initials.  See the Data Matching Algorithm.


*/
set rowcount 0

--SET NOCOUNT Off
--Creates table (magic) that we will insert matches INTO

IF EXISTS (SELECT * FROM sysobjects WHERE type = "U" AND name = "magic")
        drop table magic

-- may need to rename some fields here to match the fieldnames in the program
drop table temp
select a.dob as dob1, a.id as table2id, a.firstname as fname, substring(a.firstname,1,1) as f_init,
a.lastname as lname,  substring(a.lastname,1,1) as l_init, a.mi, a.sex  as sexcode,
a.ssn as social_sec, a.sexdayyear, a.sexmoday, a.sexmoyear
into temp
from table2

print 'Creating magic began on ' + rtrim(convert(varchar(30), getdate())) + '.'
go

--drop table magic
CREATE TABLE magic
                (lastname nvarchar(20) NULL,    Firstname nvarchar(15) NULL,
                SSN nvarchar(9)NULL,            sex nvarchar(1)NULL,
                Minit nvarchar(1) NULL,         linit nvarchar(9)NULL,
                finit nvarchar(9) NULL,         personid float (8)NULL,
                table2id nvarchar(16) NULL,     sex_code nvarchar(3) NULL,
                social_sec nvarchar (9) NULL,   lname nvarchar(20) NULL,
                Fname nvarchar(20) NULL,        Mi nvarchar (1) NULL,
                l_init nvarchar(1) NULL,        f_init nvarchar(1) NULL,
                Dob datetime NULL,              Dob1 datetime NULL,
                Total decimal(9,2) NULL,        ssntotal decimal(9,2) NULL,
                initchk decimal(9,2) NULL,      lnametot decimal(9,2) NULL,
                fnametot decimal(9,2) NULL,     minittot decimal(9,2) NULL,
                dobtot decimal(9,2) NULL)


-- PART 1 OF 3 -sdayyear- -

print 'Creating indexes for (sdayyear) began on ' + rtrim(convert(varchar(30), getdate())) + '.'
go

CREATE clustered
  INDEX [indx1] ON [table1] ([sdayyear])
-- The following three statements should be commented out, if the index has not been set up yet.
WITH
```

```
   DROP_EXISTING
ON [PRIMARY]

CREATE clustered
  INDEX [OKJindx1] ON [dbo].[temp] ([sdayyr])
--WITH
  --DROP_EXISTING
--ON [PRIMARY]
go
print 'PART 1 OF 3 (sdayyear) began on ' + rtrim(convert(varchar(30), getdate())) + '.'
go

                    SELECT a.lastname,a.firstname,a.SSN,
                    a.Sex,a.minit,a.linit,a.finit,a.Personid,a.dob,
                    b.tables2id,b.sex_code,b.social_sec,
                    b.Lname,b.Fname,b.Mi,b.l_init,b.f_init,
                    b.Dob1,cast (00.00 as decimal(5,2)) as total,
                    cast (00.00 as decimal(5,2))  as ssntotal,
                    cast (00.00 as decimal(5,2))  as initchk,
                    cast (00.00 as decimal(5,2))  as ssnt,
                    lnametot =
                    case
                            when (lname=Lastname)
                                    and Lastname is not null and lastname <>' 'then 9.58
                            when lname is null OR LASTNAME IS NULL or lname=' ' or
                                    lastname=' 'then 0.00
                            WHEN (SUBSTRING(LNAME,1,3)=SUBSTRING(LASTNAME,1,3)) or
                                  THEN 5.18
                            else -3.62
                    end,
                    ssn1t =
                    case
                            when substring(a.ssn,1,1)=substring(b.social_sec,1,1) then 1
                            else 0
                    end,
                    ssn2t =
                    case
                            when SUBSTRING(a.Ssn,2,1)=SUBSTRING(b.social_sec,2,1) then 1
                            else 0
                    end,
                    ssn3t =
                    case
                            when SUBSTRING(a.Ssn,3,1)=SUBSTRING(b.social_sec,3,1) then 1
                            else 0
                    end,
                    ssn4t =
                    case

                            when SUBSTRING(a.Ssn,4,1)=SUBSTRING(b.social_sec,4,1) then 1
                            else 0
                    end,
                    ssn5t =
                    case
                            when SUBSTRING(a.Ssn,5,1) =SUBSTRING(b.social_sec,5,1)then 1
                            else 0
                    end,
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ssn6t =
case
        when SUBSTRING(a.Ssn,6,1) =SUBSTRING(b.social_sec,6,1)then 1
        else 0
end,
ssn7t =
case
        when SUBSTRING(a.Ssn,7,1) =SUBSTRING(b.social_sec,7,1)then 1
        else 0
end,
ssn8t =
case
        when SUBSTRING(a.Ssn,8,1)=SUBSTRING(b.social_sec,8,1) then 1
        else 0
end,
ssn9t =
case
        when SUBSTRING(a.Ssn,9,1)=SUBSTRING(b.social_sec,9,1) then 1
        else 0
end,

Fnametot =
case
        when (Substring(Fname,1,15)= SUBSTRING(Firstname,1,15)
                and LEN(RTRIM(Fname))>1)
                and firstname is not null and firstname<>' ' then 6.69
        when fname is null or fname=' ' OR FIRSTNAME IS NULL
                or firstname=' ' then 0.00
        else - 3.27
end,

minittot =
case
        when Minit = mi and  mi IS NOT NULL and mi<>' '
        then 3.65
        when Minit is null or minit=' ' then 0.00
        else 0.00
end,

dobtot =
case
        when dob=dob1 and dob1 IS NOT NULL and dob<>' '
                then 6.22
        when dob is null or dob=' ' or dob1 is null or
                dob1=' ' then 0.00
                else 0.00
end
into junk1
FROM table1 a, temp b
WHERE a.sdayyear=b.sdayyr and
        (((ssn is not NULL and ssn<>' ')
        and (SUBSTRING(ssn,1,3)=SUBSTRING(social_sec,1,3)
        OR SUBSTRING(ssn,4,3)=SUBSTRING(social_sec,4,3)
        OR SUBSTRING(ssn,7,3)=SUBSTRING(social_sec,7,3)))
OR      ((ssn is null or social_sec is null or ssn=' ' or social_sec=' ')
        and (SUBSTRING(lastname,1,3)= SUBSTRING(lname,1,3))
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```
                        and (lastname is not NULL and lastname<>' ')))

print 'Updating ssntotal began on ' + rtrim(convert(varchar(30), getdate())) + '.'
go
        UPDATE junk1
        SET junk1.ssntotal =
                CASE
                WHEN SOCIAL_SEC IS NULL OR SSN IS NULL or social_sec=' ' or ssn=' '
                THEN 0.00
                WHEN ssn1t+ssn2t+ssn3t+ssn4t+ssn5t+ssn6t+ssn7t+ssn8t+ssn9t=9
                THEN 22.95
                WHEN ssn1t+ssn2t+ssn3t+ssn4t+ssn5t+ssn6t+ssn7t+ssn8t+ssn9t=8
                THEN 16.89
                WHEN ssn1t+ssn2t+ssn3t+ssn4t+ssn5t+ssn6t+ssn7t+ssn8t+ssn9t=7
                THEN 8.44
                WHEN ssn1t+ssn2t+ssn3t+ssn4t+ssn5t+ssn6t+ssn7t+ssn8t+ssn9t<7
                THEN -2.38
                END

print 'Updating initchk began on ' + rtrim(convert(varchar(30), getdate())) + '.'
go
        UPDATE junk1
                set junk1.initchk =
                case
                WHEN ssn1t+ssn2t+ssn3t+ssn4t+ssn5t+ssn6t+ssn7t+ssn8t+ssn9t>=7
                        AND sex_code ="M"
                        and (((firstname is null or firstname=' ')
                        and (lastname is null or lastname=' ')
                        and (fname is not null and fname<>' ')
                        and (lname is not null and lname<>' '))
                        or ((firstname is not null and firstname<>' ')
                        and (lastname is not null and lastname<>' ')
                        and (fname is null or fname=' ')
                        and (lname is null or lname=' ')))
                        and rtrim(l_init)+rtrim(f_init)<>rtrim(linit)+rtrim(finit)
                THEN -8
                WHEN ssn1t+ssn2t+ssn3t+ssn4t+ssn5t+ssn6t+ssn7t+ssn8t+ssn9t>=7
                        and sex_code="F"
                        and (((firstname is null or firstname=' ')
                        and (fname is not null and fname<>' '))
                        or ((firstname is not null and firstname<>' ')
                        and (fname is null or fname=' ')))
                        and rtrim (f_init)<>rtrim(finit)
                THEN -8
                else 0
                end
print 'Updating total began on ' + rtrim(convert(varchar(30), getdate())) + '.'
go
        UPDATE junk1
                set junk1.total = lnametot + Fnametot + ssntotal + minittot + dobtot + initchk

print 'Inserting magic began on ' + rtrim(convert(varchar(30), getdate())) + '.'
go
                ---------COPY MATCHED RECORDS TO PERMANENT TABLE
        --change this code
        INSERT magic
```

```
        SELECT lastname,Firstname,SSN,sex,Minit,linit,finit,personid,okj_id,sex_code,

        social_sec,lname,lname2,lname3,lname4,lname5,Fname,fname2,fname3,fname4,
                Mi,l_init,f_init,Dob,Dob1,Total, ssntotal,
                initchk, lnametot,fnametot, minittot,dobtot
                FROM junk1
                WHERE total >= 17.73 and total <> 18.8

--If junk1 exist, then drop table
IF EXISTS (SELECT * FROM sysobjects WHERE type = "U" AND name = "junk1")
        DROP TABLE junk1
-------------------------------------------------------------------------------------------
-------------------------------------------------------------------------------------------
-------------------------------------------------------------------------------------------
-- PART 2 OF 3 -sdayyear- -

print 'Creating indexes for (smoday) began on ' + rtrim(convert(varchar(30), getdate())) + '.'
go

CREATE clustered
  INDEX [indx1] ON [table1] ([smoday])
-- The following three statements should be commented out, if the index has not been set up yet.
WITH
    DROP_EXISTING
ON [PRIMARY]

CREATE clustered
  INDEX [OKJindx1] ON [temp] ([smoday])
WITH
   DROP_EXISTING
ON [PRIMARY]
go
print 'PART 2 OF 3 (smoday) began on ' + rtrim(convert(varchar(30), getdate())) + '.'
go

                SELECT a.lastname,a.firstname,a.SSN,
                a.Sex,a.minit,a.linit,a.finit,a.Personid,a.dob,
                b.okj_id,b.sex_code,b.social_sec,
                b.Lname,b.Fname,Mi,b.l_init,b.f_init,
                b.Dob1,cast (00.00 as decimal(5,2)) as total,
                cast (00.00 as decimal(5,2))  as ssntotal,
                cast (00.00 as decimal(5,2))  as initchk,
                cast (00.00 as decimal(5,2))  as ssnt,
                lnametot =
                case
                        when (lname=Lastname )
                                and Lastname is not null and lastname <>' 'then 9.58
                        when lname is null OR LASTNAME IS NULL or lname=' ' or
                                lastname=' 'then 0.00
                        WHEN (SUBSTRING(LNAME,1,3)=SUBSTRING(LASTNAME,1,3))
                                 THEN 5.18
                        else -3.62
                end,
                ssn1t =
                case
                        when substring(a.ssn,1,1)=substring(b.social_sec,1,1) then 1
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```
        else 0
end,
ssn2t =
case
        when SUBSTRING(a.Ssn,2,1)=SUBSTRING(b.social_sec,2,1) then 1
        else 0
end,
ssn3t =
case
        when SUBSTRING(a.Ssn,3,1)=SUBSTRING(b.social_sec,3,1) then 1
        else 0
end,
ssn4t =
case

        when SUBSTRING(a.Ssn,4,1)=SUBSTRING(b.social_sec,4,1) then 1
        else 0
end,
ssn5t =
case
        when SUBSTRING(a.Ssn,5,1) =SUBSTRING(b.social_sec,5,1)then 1
        else 0
end,
ssn6t =
case
        when SUBSTRING(a.Ssn,6,1) =SUBSTRING(b.social_sec,6,1)then 1
        else 0
end,
ssn7t =
case
        when SUBSTRING(a.Ssn,7,1) =SUBSTRING(b.social_sec,7,1)then 1
        else 0
end,
ssn8t =
case
        when SUBSTRING(a.Ssn,8,1)=SUBSTRING(b.social_sec,8,1) then 1
        else 0
end,
ssn9t =
case
        when SUBSTRING(a.Ssn,9,1)=SUBSTRING(b.social_sec,9,1) then 1
        else 0
end,

Fnametot =
case
        when (Substring(Fname,1,15)= SUBSTRING(Firstname,1,15)
                and LEN(RTRIM(Fname))>1)
                and firstname is not null and firstname<>' ' then 6.69
        when fname is null or fname=' ' OR FIRSTNAME IS NULL
                or firstname=' ' then 0.00
        else - 3.27
end,

minittot =
case
```

```
                        when Minit = mi and  mi IS NOT NULL and mi<>' '
                        then 3.65
                        when Minit is null or minit=' ' then 0.00
                        else 0.00
                end,

                dobtot =
                case
                        when dob= dob1 and dob1 IS NOT NULL and dob<>' '
                                then 6.22
                        when dob is null or dob=' ' or dob1 is null or
                                dob1=' ' then 0.00
                                else 0.00
                end
                into junk1
                FROM table1 a, temp b
                WHERE a.smoday=b.smoday and
                        (((ssn is not NULL and ssn<>' ')
                        and (SUBSTRING(ssn,1,3)=SUBSTRING(social_sec,1,3)
                        OR SUBSTRING(ssn,4,3)=SUBSTRING(social_sec,4,3)
                        OR SUBSTRING(ssn,7,3)=SUBSTRING(social_sec,7,3)))
                OR      ((ssn is null or social_sec is null or ssn=' ' or social_sec=' ')
                        and (SUBSTRING(lastname,1,3)= SUBSTRING(lname,1,3))
                        and (lastname is not NULL and lastname<>' ')))

print 'Updating ssntotal began on ' + rtrim(convert(varchar(30), getdate())) + '.'

        UPDATE junk1
        SET junk1.ssntotal =
                CASE
                WHEN SOCIAL_SEC IS NULL OR SSN IS NULL or social_sec=' ' or ssn=' '
THEN 0.00
                WHEN ssn1t+ssn2t+ssn3t+ssn4t+ssn5t+ssn6t+ssn7t+ssn8t+ssn9t=9 THEN
22.95
                WHEN ssn1t+ssn2t+ssn3t+ssn4t+ssn5t+ssn6t+ssn7t+ssn8t+ssn9t=8 THEN
16.89
                WHEN ssn1t+ssn2t+ssn3t+ssn4t+ssn5t+ssn6t+ssn7t+ssn8t+ssn9t=7 THEN 8.44
                WHEN ssn1t+ssn2t+ssn3t+ssn4t+ssn5t+ssn6t+ssn7t+ssn8t+ssn9t<7 THEN -
2.38
                END
print 'Updating initchk began on ' + rtrim(convert(varchar(30), getdate())) + '.'

        UPDATE junk1
                set junk1.initchk =
                case
                WHEN ssn1t+ssn2t+ssn3t+ssn4t+ssn5t+ssn6t+ssn7t+ssn8t+ssn9t>=7
                        AND sex_code ="M"
                        and (((firstname is null or firstname=' ')
                        and (lastname is null or lastname=' ')
                        and (fname is not null and fname<>' ')
                        and (lname is not null and lname<>' '))
                        or ((firstname is not null and firstname<>' ')
                        and (lastname is not null and lastname<>' ')
                        and (fname is null or fname=' ')
                        and (lname is null or lname=' ')))
                        and rtrim(l_init)+rtrim(f_init)<>rtrim(linit)+rtrim(finit)
```

```
                THEN -8
                WHEN ssn1t+ssn2t+ssn3t+ssn4t+ssn5t+ssn6t+ssn7t+ssn8t+ssn9t>=7
                        and sex_code="F"
                        and (((firstname is null or firstname=' ')
                        and (fname is not null and fname<>' '))
                        or ((firstname is not null and firstname<>' ')
                        and (fname is null or fname=' ')))
                        and rtrim (f_init)<>rtrim(finit)
                THEN -8
                else 0
                end
print 'Updating total began on ' + rtrim(convert(varchar(30), getdate())) + '.'

        UPDATE junk1
                set junk1.total = lnametot + Fnametot + ssntotal + minittot + dobtot + initchk

print 'Inserting into magic began on ' + rtrim(convert(varchar(30), getdate())) + '.'

        INSERT magic
        SELECT lastname,Firstname,SSN,sex,Minit,linit,finit,personid,okj_id,sex_code,
        social_sec,lname,lname2,lname3,lname4,lname5,Fname,fname2,fname3,fname4,
        Mi,l_init,f_init,Dob,Dob1,Total, ssntotal,
        initchk, lnametot,fnametot, minittot,dobtot
        FROM junk1
                WHERE total >= 17.73 and total <> 18.8


--If junk1 exist, then drop table
IF EXISTS (SELECT * FROM sysobjects WHERE type = "U" AND name = "junk1")
        DROP TABLE junk1

-----------------------------------------------------------------------------------------------
-----------------------------------------------------------------------------------------------
-----------------------------------------------------------------------------------------------
-- PART 3 OF 3 -smoyear- -

print 'Creating indexes for (smoyear) began on ' + rtrim(convert(varchar(30), getdate())) + '.'
go

CREATE clustered
  INDEX [indx1] ON [table1] ([smoyear])
WITH
   DROP_EXISTING
ON [PRIMARY]

CREATE clustered
  INDEX [okjindx1] ON [temp] ([smoyr])
WITH
   DROP_EXISTING
ON [PRIMARY]

print 'PART 3 OF 3 (smoyear) began on ' + rtrim(convert(varchar(30), getdate())) + '.'
go

                SELECT a.lastname,a.firstname,a.SSN,
                a.Sex,a.minit,a.linit,a.finit,a.Personid,a.dob,
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```
b.okj_id,b.sex_code,b.social_sec,
b.Lname, b.Fname,Mi,b.l_init,b.f_init,
b.Dob1,cast (00.00 as decimal(5,2)) as total,
cast (00.00 as decimal(5,2))  as ssntotal,
cast (00.00 as decimal(5,2))  as initchk,
cast (00.00 as decimal(5,2))  as ssnt,
lnametot =
case
        when (lname=Lastname)
                and Lastname is not null and lastname <>' 'then 9.58
        when lname is null OR LASTNAME IS NULL or lname=' ' or
                lastname=' 'then 0.00
        WHEN (SUBSTRING(LNAME,1,3)=SUBSTRING(LASTNAME,1,3))
                 THEN 5.18
        else -3.62
end,
ssn1t =
case
        when substring(a.ssn,1,1)=substring(b.social_sec,1,1) then 1
        else 0
end,
ssn2t =
case
        when SUBSTRING(a.Ssn,2,1)=SUBSTRING(b.social_sec,2,1) then 1
        else 0
end,
ssn3t =
case
        when SUBSTRING(a.Ssn,3,1)=SUBSTRING(b.social_sec,3,1) then 1
        else 0
end,
ssn4t =
case

        when SUBSTRING(a.Ssn,4,1)=SUBSTRING(b.social_sec,4,1) then 1
        else 0
end,
ssn5t =
case
        when SUBSTRING(a.Ssn,5,1) =SUBSTRING(b.social_sec,5,1)then 1
        else 0
end,
ssn6t =
case
        when SUBSTRING(a.Ssn,6,1) =SUBSTRING(b.social_sec,6,1)then 1
        else 0
end,
ssn7t =
case
        when SUBSTRING(a.Ssn,7,1) =SUBSTRING(b.social_sec,7,1)then 1
        else 0
end,
ssn8t =
case
        when SUBSTRING(a.Ssn,8,1)=SUBSTRING(b.social_sec,8,1) then 1
        else 0
```

```
                end,
                ssn9t =
                case
                        when SUBSTRING(a.Ssn,9,1)=SUBSTRING(b.social_sec,9,1) then 1
                        else 0
                end,

                Fnametot =
                case
                        when (Substring(Fname,1,15)= SUBSTRING(Firstname,1,15)
                                and LEN(RTRIM(Fname))>1)
                                and firstname is not null and firstname<>' ' then 6.69
                        when fname is null or fname=' ' OR FIRSTNAME IS NULL
                                or firstname=' ' then 0.00
                        else - 3.27
                end,

                minittot =
                case
                        when Minit = mi and  mi IS NOT NULL and mi<>' '
                        then 3.65
                        when Minit is null or minit=' ' then 0.00
                        else 0.00
                end,

                dobtot =
                case
                        when dob= dob1 and dob1 IS NOT NULL and dob<>' '
                                then 6.22
                        when dob is null or dob=' ' or dob1 is null or
                                dob1=' ' then 0.00
                                else 0.00
                end
                into junk1
                FROM table1 a, temp b
                WHERE a.SMOYEAR=b.SMOYR  and
                        (((ssn is not NULL and ssn<>' ')
                        and (SUBSTRING(ssn,1,3)=SUBSTRING(social_sec,1,3)
                        OR SUBSTRING(ssn,4,3)=SUBSTRING(social_sec,4,3)
                        OR SUBSTRING(ssn,7,3)=SUBSTRING(social_sec,7,3)))
                OR      ((ssn is null or social_sec is null or ssn=' ' or social_sec=' ')
                        and (SUBSTRING(lastname,1,3)= SUBSTRING(lname,1,3))
                        and (lastname is not NULL and lastname<>' ')))

print 'Updating ssntotal began on ' + rtrim(convert(varchar(30), getdate())) + '.'
go
        UPDATE junk1
        SET junk1.ssntotal =
                CASE
                WHEN SOCIAL_SEC IS NULL OR SSN IS NULL or social_sec=' ' or ssn=' '
THEN 0.00
                WHEN ssn1t+ssn2t+ssn3t+ssn4t+ssn5t+ssn6t+ssn7t+ssn8t+ssn9t=9 THEN
22.95
                WHEN ssn1t+ssn2t+ssn3t+ssn4t+ssn5t+ssn6t+ssn7t+ssn8t+ssn9t=8 THEN
16.89
                WHEN ssn1t+ssn2t+ssn3t+ssn4t+ssn5t+ssn6t+ssn7t+ssn8t+ssn9t=7 THEN 8.44
```

```
                WHEN ssn1t+ssn2t+ssn3t+ssn4t+ssn5t+ssn6t+ssn7t+ssn8t+ssn9t<7 THEN -
2.38
                END
print 'Updating initchk began on ' + rtrim(convert(varchar(30), getdate())) + '.'
go
        UPDATE junk1
                set junk1.initchk =
                case
                WHEN ssn1t+ssn2t+ssn3t+ssn4t+ssn5t+ssn6t+ssn7t+ssn8t+ssn9t>=7
                        AND sex_code ="M"
                        and (((firstname is null or firstname=' ')
                        and (lastname is null or lastname=' ')
                        and (fname is not null and fname<>' ')
                        and (lname is not null and lname<>' '))
                        or ((firstname is not null and firstname<>' ')
                        and (lastname is not null and lastname<>' ')
                        and (fname is null or fname=' ')
                        and (lname is null or lname=' ')))
                        and rtrim(l_init)+rtrim(f_init)<>rtrim(linit)+rtrim(finit)
                THEN -8
                WHEN ssn1t+ssn2t+ssn3t+ssn4t+ssn5t+ssn6t+ssn7t+ssn8t+ssn9t>=7
                        and sex_code="F"
                        and (((firstname is null or firstname=' ')
                        and (fname is not null and fname<>' '))
                        or ((firstname is not null and firstname<>' ')
                        and (fname is null or fname=' ')))
                        and rtrim (f_init)<>rtrim(finit)
                THEN -8
                else 0
                end
print 'Updating total began on ' + rtrim(convert(varchar(30), getdate())) + '.'
go
        UPDATE junk1
                set junk1.total = lnametot + Fnametot + ssntotal + minittot + dobtot + initchk

print 'Inserting into magic began on ' + rtrim(convert(varchar(30), getdate())) + '.'
go
        INSERT magic
        SELECT lastname,Firstname,SSN,sex,Minit,linit,finit,personid,okj_id,sex_code,
                social_sec,lname,Fname,
                Mi,l_init,f_init,Dob,Dob1,Total, ssntotal,
                initchk, lnametot,fnametot, minittot,dobtot
                FROM junk1
                WHERE total >= 17.73 and total <> 18.8

--If junk1 exist, then drop table
-------------------------------------------------------------------------------------------
-------------------------------------------------------------------------------------------
-------------------------------------------------------------------------------------------

print 'Selecting distinct IDs began on ' + rtrim(convert(varchar(30), getdate())) + '.'
go

select*
into ##pdajunk2
from magic
```

```
order by table2id,Total

select *,identity(int,1,1) as id_num
into ##pdajunk3
from ##pdajunk2

IF EXISTS (SELECT * FROM tempdb.dbo.sysobjects WHERE type = "U" AND name =
"##PDAjunk2")
        drop table ##PDAjunk2
IF EXISTS (SELECT * FROM sysobjects WHERE type = "U" AND name = "magic")
        drop table magic
select*
into magic
from ##pdajunk3
where table2id+cast(id_num as nvarchar(10)) in
        (select table2id+cast(max(id_num) as nvarchar(10))
                from ##pdajunk3 group by table2id)
order by table2,id_num

--id_num is not the personid, it is used to unduplicate the records

print 'This job completed on ' + rtrim(convert(varchar(30), getdate())) + '.'
```

FoxPro Code

```
IF .t.

        ?time()
        ttt='dayyear'
        ?ttt
        *select all the possibilities for Sex+Day+Year

        SELECT sex+day_yr as sdayyear,count(*) from table2;
                where sex+day_yr in (select Sex+dayyear from table1);
                order by sex,day_yr;
                group by 1;
                into table dayyear

        CLOSE databases
        i=1
        USE dayyear
        Skip 1 && blank record

        DO while eof()=.f.
                sdy=sdayyear
                WAIT window sdy nowait


                *Match all the records for just ONE sex+day+year combination
                SELECT a.Lastname,a.Firstname,a.Ssn,;
```

```
        a.Dob,a.Sex,a.table1id,a.Minit,a.linit,a.finit,;
        b.Total,b.table2id,b.Dob,b.sex,b.ssn,;
        b.Lname, b.Fname, b.Minit,;
        b.finit,b.linit;
        from table1 a, table2 b;
        where a.Sex+a.dayyear=b.sex+b.day_yr;
        and a.Sex+a.dayyear=sdy and;
        (substr(a.ssn,1,3)=substr(b.ssn,1,3) or;
        substr(a.ssn,4,3)=substr(b.ssn,4,3) or;
        substr(a.ssn,7,3)=substr(b.ssn,7,3) or;
        (substr(a.lastname,1,3)=substr(b.lname,1,3) and a.lastname<>' '));
        into table magicmatch


*This is the table just created
SELECT magicmatch
GO top
SET talk off

*Repeat following process until all the sex+day+year combinations have
been used
DO while eof()=.f.

        *reset scoring to zero for each record
        T=0
        *Last Name Match
        if lastname<>' '
        DO case;
        CASE Lastname=' ' or lname=' ' or len(alltrim(lastname))=1
                *skip record
        CASE alltrim(lastname)=alltrim(Lname);
                                and
        len(alltrim(lastname))=len(alltrim(Lname))
                        T=t+9.58
        OTHERWISE
                DO case
                CASE
                substr(ALLTRIM(lastname),1,3)=substr(ALLTRIM(lname
                ),1,3);
                        AND LNAME<>' '
                        T=t+5.18
                OTHERWISE
                        T=t-3.62
                ENDCASE
        ENDCASE
endif
```

```
*SSN Match
*SSNM is the variable that will get the score

q=0
*SSN Match
IF  ssn_a=' ' or  Ssn_b=' '
        *skip and move on
ELSE
        IF substr( ssn_a,1,1)=substr(Ssn_b,1,1)
                q=q+1
        ENDIF
        IF substr( ssn_a,2,1)=substr(Ssn_b,2,1)
                q=q+1
        ENDIF
        IF substr( ssn_a,3,1)=substr(ssn_b,3,1)
                q=q+1
        ENDIF
        IF substr( ssn_a,4,1)=substr(ssn_b,4,1)
                q=q+1
        ENDIF
        IF q>=2
                IF substr(ssn_a,5,1)=substr(ssn_b,5,1)
                        q=q+1
                ENDIF
                IF substr(ssn_a,6,1)=substr(Ssn_b,6,1)
                        q=q+1
                ENDIF
                IF substr(ssn_a,7,1)=substr(Ssn_b,7,1)
                        q=q+1
                ENDIF
                IF substr(ssn_a,8,1)=substr(Ssn_b,8,1)
                        q=q+1
                ENDIF
                IF substr(ssn_a,9,1)=substr(Ssn_b,9,1)
                        q=q+1
                ENDIF
        ENDIF

        DO case
        CASE q<7
                T=t-2.38
        CASE q=9
                T=t+22.95
        CASE q=8
                T=t+16.89
```

```
        CASE q=7
                T=t+8.44
        ENDCASE
ENDIF

*OK - at this point, if they is negative points
* there will never be enough to make break off

IF t>=0

        DO case
        CASE  Fname=' ' or  Firstname=' ' or len(alltrim(
        Fname))=1
                *skip record
        CASE alltrim(firstname)= alltrim(fname) and;
                        len(alltrim(firstname))=len(alltrim(Fname))
                T=t+6.69
        OTHERWISE
                DO case
                CASE substr(ALLTRIM(firstname),1,3)=
                substr(ALLTRIM(fname),1,3);
                AND FNAME<>' '
                T=t+3.37
                OTHERWISE
                T=t-3.27
                ENDCASE
        ENDCASE

        *Middle Initial
        DO case
        CASE minit_a=' '
                * skip record
        CASE minit_a= minit_b
                T=t+3.65
        ENDCASE

        *DOB Match
        DO case
        CASE dob_a={  /  /  }
                *skip record
        CASE dob_a= dob_b
                T=t+6.22
        ENDCASE

        *INITIAL CHECK
        DO CASE
```

```
                                CASE q>=7 and sex_a='M' and (Firstname=' ' or Fname='
');
                                                and (Lastname=' ' or Lname=' ');
                                                and alltrim(linit_a)+alltrim(finit_a);
                                                <>alltrim(linit_b)+alltrim(finit_b)
                                        T=t-8
                                CASE q>=7 and sex_a='F' and (Firstname=' ' or Fname=' ');
                                                and alltrim(finit_a)<>alltrim(finit_b)
                                        T=t-8
                                ENDCASE


                                        REPLACE total with t
                                ELSE
                                        *not enough point
                                ENDIF

                                Skip

                        ENDDO


                        *The first time though, create a new table (MAGIC1)
                        * then after that, you just copy to table
                        IF i=1
                                COPY to magic1 for total>=15
                                USE magic1 in 0
                                i=2
                        ELSE
                                SELECT magic1
                                APPEND from magicmatch for total>=15
                        ENDIF

                        *Select the next record in table, repeat process
                        SELECT dayyear
                        Skip

                        *This just tells me if I'm one/tenth throught the dayyear table
                        IF MOD(recno(),648)=0
                                ?time()
                        ENDIF
                ENDDO
ENDIF


IF .t.
```

```
?time()
ttt='moday'
?ttt

SELECT sex+mo_day as smoday,count(*) from table2;
        where sex+mo_day in (select Sex+moday from table1);
        order by sex,mo_day;
        group by 1;
        into table moday

CLOSE databases
USE magic1 in 0
i=1
USE moday in 0
SELECT moday
Skip 1 && blank record

DO while eof()=.f.
        smd=smoday
        WAIT window smd nowait

        *Match all the records for just ONE sex+day+year combination
        SELECT a.Lastname,a.Firstname,a.Ssn,;
                a.Dob,a.Sex,a.table1id,a.Minit,a.linit,a.finit,;
                b.Total,b.dlno,b.Dob,b.sex,b.ssn,;
                b.Lname,;
                b.Fname,b.Minit,;
                b.finit,b.linit;
                from table1 a, table2 b;
                where a.Sex+a.moday=b.sex+b.mo_day;
                and a.Sex+a.moday=smd and;
                (substr(a.ssn,1,3)=substr(b.ssn,1,3) or;
                substr(a.ssn,4,3)=substr(b.ssn,4,3) or;
                substr(a.ssn,7,3)=substr(b.ssn,7,3) or;
                (substr(a.lastname,1,3)=substr(b.lname,1,3) and a.lastname<>' '));
                into table magicmatch


        SELECT magicmatch
        GO top
        SET talk off
        DO while eof()=.f.
                T=0

        *Last Name Match
```

```
        if lastname<>' '
                DO case;
                CASE Lastname=' ' or lname=' ' or len(alltrim(lastname))=1
                        *skip record
                CASE alltrim(lastname)=alltrim(Lname);
                                        and
                len(alltrim(lastname))=len(alltrim(Lname))
                                T=t+9.58
                OTHERWISE
                        DO case
                        CASE
substr(ALLTRIM(lastname),1,3)=substr(ALLTRIM(lname),1,3);
                                AND LNAME<>' '
                                T=t+5.18
                        OTHERWISE
                                T=t-3.62
                        ENDCASE
                ENDCASE
        endif

                *SSN Match
                *SSNM is the variable that will get the score

                q=0
                *SSN Match
                IF  ssn_a=' ' or  Ssn_b=' '
                        *skip and move on
                ELSE
                        IF substr( ssn_a,1,1)=substr(Ssn_b,1,1)
                                q=q+1
                        ENDIF
                        IF substr( ssn_a,2,1)=substr(Ssn_b,2,1)
                                q=q+1
                        ENDIF
                        IF substr( ssn_a,3,1)=substr(Ssn_b,3,1)
                                q=q+1
                        ENDIF
                        IF substr( ssn_a,4,1)=substr(Ssn_b,4,1)
                                q=q+1
                        ENDIF
                        IF q>=2
                                IF substr(ssn_a,5,1)=substr(Ssn_b,5,1)
                                        q=q+1
                                ENDIF
                                IF substr(ssn_a,6,1)=substr(Ssn_b,6,1)
                                        q=q+1
```

```
                                        ENDIF
                                        IF substr(ssn_a,7,1)=substr(Ssn_b,7,1)
                                                q=q+1
                                        ENDIF
                                        IF substr(ssn_a,8,1)=substr(Ssn_b,8,1)
                                                q=q+1
                                        ENDIF
                                        IF substr(ssn_a,9,1)=substr(Ssn_b,9,1)
                                                q=q+1
                                        ENDIF
                                ENDIF

                                DO case
                                CASE q<7
                                        T=t-2.38
                                CASE q=9
                                        T=t+22.95
                                CASE q=8
                                        T=t+16.89
                                CASE q=7
                                        T=t+8.44
                                ENDCASE
                        ENDIF


                        *OK - at this point, if they is negative points
                        * there will never be enough to make break off

                        IF t>=0

                                DO case
                                CASE  Fname=' ' or  Firstname=' ' or len(alltrim(
Fname))=1
                                        *skip record
                                CASE alltrim(firstname)= alltrim(fname) and;
                                        len(alltrim(firstname))=len(alltrim(Fname))
                                        T=t+6.69
                                OTHERWISE
                                        DO case
                                        CASE
substr(ALLTRIM(firstname),1,3)=substr(ALLTRIM(fname),1,3);
                                        AND FNAME<>' '
                                        T=t+3.37
                                        OTHERWISE
                                        T=t-3.27
                                        ENDCASE
```

```
                ENDCASE

                *Middle Initial
                DO case
                CASE minit_a=' '
                        * skip record
                CASE minit_a= minit_b
                        T=t+3.65
                ENDCASE

                *DOB Match
                DO case
                CASE dob_a={  /  /  }
                        *skip record
                CASE dob_a= dob_b
                        T=t+6.22
                ENDCASE

                *INITIAL CHECK - Becki's Code!!!! YAHOO
                DO CASE
                CASE q>=7 and sex_a='M' and (Firstname=' '
                                or Fname=' ');
                                and (Lastname=' ' or Lname=' ');
                                and alltrim(linit_a)+alltrim(finit_a);
                                <>alltrim(linit_b)+alltrim(finit_b)
                        T=t-8
                CASE q>=7 and sex_a='F' and (Firstname=' ' or Fname=' ');
                                and alltrim(finit_a)<>alltrim(finit_b)
                        T=t-8
                ENDCASE

                REPLACE total with t
        ELSE
                *not enough point
        ENDIF

        Skip

ENDDO

SELECT magic1
APPEND from magicmatch for total>=15

SELECT moday
Skip
```

```
            IF MOD(recno(),73)=0
                ?time()
            ENDIF
            *       WAIT window 'ere'

        ENDDO

ENDIF



IF .t.

        ?time()
        ttt='moyear'
        ?ttt

        SELECT sex+mo_yr as smoyear,count(*) from table2;
            where sex+mo_yr in (select Sex+moyear from table1);
            order by sex,mo_yr;
            group by 1;
            into table moyear


        CLOSE databases
        USE magic1 in 0
        i=1
        USE moyear in 0
        SELECT moyear
        Skip 1 && blank record

        DO while eof()=.f.
            smy=smoyear
            WAIT window smy nowait

            SELECT a.Lastname,a.Firstname,a.Ssn,;
                a.Dob,a.Sex,a.Uniqid,a.Minit,a.linit,a.finit,;
                b.Total,b.dlno,b.Dob,b.sex,b.ssn,;
                b.Lname,;
                b.Fname, b.Minit,;
                b.finit,b.linit;
                from table1 a, table2 b;
                where a.Sex+a.moyear=b.sex+b.mo_yr;
                and a.Sex+a.moyear=smy and;
                (substr(a.ssn,1,3)=substr(b.ssn,1,3) or;
                substr(a.ssn,4,3)=substr(b.ssn,4,3) or;
```

```
                substr(a.ssn,7,3)=substr(b.ssn,7,3) or;
                (substr(a.lastname,1,3)=substr(b.lname,1,3) and a.lastname<>' '));
                into table magicmatch

        SELECT magicmatch
        GO top
        SET talk off
        DO while eof()=.f.
                T=0
        *Last Name Match
        if lastname<>' '
                DO case;
                CASE Lastname=' ' or lname=' ' or len(alltrim(lastname))=1
                        *skip record
                CASE alltrim(lastname)=alltrim(Lname);
                                        and
len(alltrim(lastname))=len(alltrim(Lname))
                                T=t+9.58
                OTHERWISE
                        DO case
                        CASE
substr(ALLTRIM(lastname),1,3)=substr(ALLTRIM(lname),1,3);
                                AND LNAME<>' '
                                T=t+5.18
                        OTHERWISE
                                T=t-3.62
                        ENDCASE
                ENDCASE
        endif

                *SSN Match
                *SSNM is the variable that will get the score

                q=0
                *SSN Match
                IF  ssn_a=' ' or  Ssn_b=' '
                        *skip and move on
                ELSE
                        IF substr( ssn_a,1,1)=substr(Ssn_b,1,1)
                                q=q+1
                        ENDIF
                        IF substr( ssn_a,2,1)=substr(Ssn_b,2,1)
                                q=q+1
                        ENDIF
                        IF substr( ssn_a,3,1)=substr(Ssn_b,3,1)
                                q=q+1
```

```
        ENDIF
        IF substr( ssn_a,4,1)=substr(Ssn_b,4,1)
                q=q+1
        ENDIF
        IF q>=2
                IF substr(ssn_a,5,1)=substr(Ssn_b,5,1)
                        q=q+1
                ENDIF
                IF substr(ssn_a,6,1)=substr(Ssn_b,6,1)
                        q=q+1
                ENDIF
                IF substr(ssn_a,7,1)=substr(Ssn_b,7,1)
                        q=q+1
                ENDIF
                IF substr(ssn_a,8,1)=substr(Ssn_b,8,1)
                        q=q+1
                ENDIF
                IF substr(ssn_a,9,1)=substr(Ssn_b,9,1)
                        q=q+1
                ENDIF
        ENDIF

        DO case
        CASE q<7
                T=t-2.38
        CASE q=9
                T=t+22.95
        CASE q=8
                T=t+16.89
        CASE q=7
                T=t+8.44
        ENDCASE
ENDIF


*OK - at this point, if they is negative points
* there will never be enough to make break off

IF t>=0

        DO case
        CASE  Fname=' ' or  Firstname=' ' or
                len(alltrim( Fname))=1
                *skip record
        CASE alltrim(firstname)= alltrim(fname) and;
                        len(alltrim(firstname))=len(alltrim(Fname))
```

```
                    T=t+6.69
                OTHERWISE
                    DO case
                    CASE substr(ALLTRIM(firstname),1,3)=
                        substr(ALLTRIM(fname),1,3);
                    AND FNAME<>' '
                    T=t+3.37
                    OTHERWISE
                    T=t-3.27
                    ENDCASE
                ENDCASE

                *Middle Initial
                DO case
                CASE minit_a=' '
                    * skip record
                CASE minit_a= minit_b
                    T=t+3.65
                ENDCASE

                *DOB Match
                DO case
                CASE dob_a={  /  /  }
                    *skip record
                CASE dob_a= dob_b
                    T=t+6.22
                ENDCASE

                *INITIAL CHECK - Becki's Code!!!! YAHOO
                DO CASE
                CASE q>=7 and sex_a='M' and (Firstname=' ' or Fname='
');
                        and (Lastname=' ' or Lname=' ');
                        and alltrim(linit_a)+alltrim(finit_a);
                        <>alltrim(linit_b)+alltrim(finit_b)
                    T=t-8
                CASE q>=7 and sex_a='F' and (Firstname=' ' or Fname=' ');
                        and alltrim(finit_a)<>alltrim(finit_b)
                    T=t-8
                ENDCASE

                REPLACE total with t
            ELSE
                *not enough point
            ENDIF
```

```
                    Skip

                ENDDO

                SELECT magic1
                APPEND from magicmatch for total>=15

                SELECT moyear
                Skip

                IF MOD(recno(),255)=0
                    ?time()
                ENDIF

            ENDDO

quit
ENDIF

IF .f.

            CLOSE databases
            USE magic1

            *Keep records where TOTAL is high enough
            SELECT * from magic1;
                where total>=17.73;
                order by table2id,table1id,total;
                into cursor temp

            *Get those with multiple matches
            SELECT Recipien,count(distinct(table1id)) as cnt;
                from temp;
                group by 1;
                order by 2 desc;
                having cnt>=2;
                into cursor temp2

            *Keep those for those without multiple matches
            SELECT * from temp;
                where table2id not in (select distinct table2id from temp2);
                order by table2id,table1id,total;
                into cursor temp3

            *Get records for those with multiple matches
            SELECT * from temp;
```

```
            where table2id in (select distinct table2id from temp2);
            order by table2id,table1id,total;
            into cursor temp4

        *Get highest score
        SELECT * from temp4;
            group by table2id;
            into cursor temp5

        SELECT table2id,count(distinct(table1id));
            from temp3;
            group by 1;
            order by 2 desc;
            into cursor aa

ENDIF


if .t.

CLOSE databases
USE magic1

*Keep records where TOTAL is high enough
SELECT * from magic1;
        where total>=17.73;
        order by table2id,total;
        into cursor temp

*Keep the highest record for each person
SELECT table2id,table1id;
        from temp;
        group by table2id;
        into cursor temp2




*delete file dayyear.dbf
*delete file moday.dbf
*delete file moyear.dbf
endif
```