jlh1067@SCID15-LAB12L:~/engr225/lab3> script popmodel_2.f90
Script started, file is popmodel_2.f90
jlh1067@SCID15-LAB12L:~/engr225/lab3> gfortran popmodel_2.f90 -o pop
/usr/lib64/gcc/x86_64-suse-linux/4.8/../../../../lib64/crt1.o: In function `_start':
/home/abuild/rpmbuild/BUILD/glibc-2.19/csu/../sysdeps/x86_64/start.S:118: undefined reference to `main'
collect2: error: ld returned 1 exit status
jlh1067@SCID15-LAB12L:~/engr225/lab3> cat popmodel_2.f90
jlh1067@SCID15-LAB12L:~/engr225/lab3> cat popmodelinput.DAT
100, 15, 0.4, 0.2jlh1067@SCID15-LAB12L:~/engr225/lab3> cat popmodeloutput.OUT
  2008.5498097895015
jlh1067@SCID15-LAB12L:~/engr225/lab3> exit
exit
Script done, file is popmodel_2.f90
jlh1067@SCID15-LAB12L:~/engr225/lab3>

```fortran
PROGRAM PopulationModel
IMPLICIT NONE
Integer, parameter:: wp = selected_real_kind(15)
real(wp) ::  P, b, d, Po, t, e
e=2.71828
P=(Po*e**((b-d)*(t)))

OPEN(UNIT = 12, FILE = "popmodelinput.DAT", STATUS = "OLD")
OPEN(UNIT = 13, FILE = "popmodeloutput.OUT", STATUS = "REPLACE")

READ(12,*) Po, t, b, d

write(*,*) Po , t , b , d
P=(Po*e**((b-d)*(t)))

IF((Po<0).OR.(t<0).OR.(b<0).OR.(d<0))THEN
    WRITE(*,*) "INVALID ENTRY; NEGATIVE NUMBER"
END IF

WRITE(13,*) P

STOP

END PROGRAM PopulationModel

!A similarity between the advantages of excel and fortran revolves
!around the fact that the computer is extremely sensitive to numbers
!and vaslues changing. One small adjustment can throw off the whole
!program or spreadsheet. The advantages though are when the program
!is sucessfully compiled or the spreadsheet is done properly it save
!much time and effort to completing the task or whatever they were
!made for.
```