CS-555 Agile Methods for Software Development
Project 3

Group #5:
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1. Acceptance tests:

Title: Read GEDCOM file		
	Priority: 2	Story Points: 1
As a user I want this system can read in a GEDCOM file So that I don't have to type in all data by my own.		

Test: Prepare a sample GEDCOM file.

Title: Create a class to store GEDCOM data		
	Priority: 1	Story Points: 2
As a user I want this system to have a data structure, probably a class to store all the GEDCOM data So that data can be used more easily later.		

Test: N/A

Title: Choose data type to store the data		
	Priority: 3	Story Points: 1
As a user I want to choose to use which data type (vector, ArrayList or Linked List) to store our data So that we can use the data more easily later.		

Test: N/A

Title: Check the age for the individuals		
	Priority: 3	Story Points: 1
As a user I want this system to check the ages for each individuals by using BIRT and DEAT To confirm the data is logically correct.		

Test: create several individuals who have the wrong birthday and death time information.

0 @I0@ INDI
1 NAME John /Doe/
1 SEX M
1 BIRT
2 DATE 1 JAN 2001
1 DEAT
2 DATE 3 MAR 1990
1 FAMC @F1@
0 NOTE This is an individual whose death date is before the his birthday

0 @I1@ INDI
1 NAME Mary /Smith/
1 SEX F
1 BIRT
2 DATE 2 FEB 1980
1 DEAT
2 DATE 4 JAN 1980
1 FAMC @F2@
0 NOTE This is an individual whose death date is before the his birthday

Title: Check the sex of husband and wife in each family		
	Priority: 3	Story Points: 1
As a user I want this system to check the sex of each husband and wife in each family So that the wife is female and husband is male.		

Test: Prepare some families with wrong SEX info for wives and husbands.
0 @I3@ INDI
1 NAME John /Smith/
1 SEX F
1 BIRT
2 DATE 2 FEB 1980
1 FAMC @F2@

0 @I4@ INDI
1 NAME Jennifer /Lawrence/
1 SEX M
1 BIRT
2 DATE 2 FEB 1992
1 FAMC @F2@

0 @F3@ FAM
1 HUSB @I3@
1 WIFE @I4@
1 CHIL @I5@
1 MARR
2 DATE 4 APR 1945
0 NOTE This is a family with wrong information about SEX tag of husbands and

wives.

Title: Check if husband and wife are alive at the same time		
	Priority: 3	Story Points: 1
As a user I want this system to check if husband and wife are alive at the same time So that the husband's BIRT is after the wife's DEAT, or vice versa.		

Test: Prepare a family in which husband and wife do not live at the same time.
0 @I12@ INDI
1 NAME John /Smith/
1 SEX M
1 BIRT
2 DATE 2 FEB 1980
1 DEAT
2 DATE 3 FEB 2004
1 FAMC @F5@

0 @I13@ INDI
1 NAME Jennifer /Aniston/
1 SEX F
1 BIRT
2 DATE 2 FEB 2005
1 FAMC @F5@

0 @F5@ FAM
1 HUSB @I12@
1 WIFE @I13@
1 MARR
2 DATE 4 APR 1990
0 NOTE This is a family in which husband and wife do not live at the same time.

Check Parents of Each Family		
Acceptance Test: T07	Priority: 2	Story Points: 2
As a user, I want to check the number of husband and wife of each family So that there is only one husband and one wife in each family.		

Test:

0 @I2@ INDI
1 NAME Frank /Zhu/
1 SEX M
1 BIRT
2 DATE 1 JAN 1960
1 FAMS @F2@

0 @I4@ INDI

1 NAME Jack /Qian/
1 SEX M
1 BIRT
2 DATE 13 Aug 1989
1 FAMS @F2@

0 @I5@ INDI
1 NAME Ruth /Cheng/
1 SEX F
1 BIRT
2 DATE 1 Jan 1990
1 FAMS @F2@

0 @F2@ FAM
1 HUSB @I4@
1 WIFE @I5@
1 WIFE @I2@
1 MARR
2 DATE 3 MAR 1955
0 NOTE This is a family which has two wives.
Test:
0 @I8@ INDI
1 NAME Kathy /Qian/
1 SEX F
1 BIRT
2 DATE 12 MAY 1963
1 FAMC @F3@
1 FAMC @F4@

0 @F3@ FAM
1 HUSB @I6@
1 WIFE @I7@
1 CHIL @I8@
1 MARR
2 DATE 3 APR 1960

Check Children's FAMC tags		
Acceptance Test: T08	Priority: 2	Story Points: 2
As a user, I want this system to check the FAMC of each child So that we can make sure that one child only belongs to only one family.		

0 @F4@ FAM1 HUSB @I9@
1 WIFE @I10@
1 CHIL @I8@
1 MARR
2 DATE 20 JUN 1961
0 NOTE This child belongs to two family.

GEDCOM File Analysis		
Acceptance Test: T02	Priority: 2	Story Points: 1
As a user, I want this system to analyze the GEDCOM file So that people can get some useful results from the analysis.		

Test: N/A

Check Tags Existence		
Acceptance Test: T06	Priority: 2	Story Points: 2
As a user, I want this system to check if all the tags exist So that we can have accurate analysis.		

Test:
0 @I11@ INDI
1 NAME Cindy /Wu/
1 SEX F
1 BIRT
2 DATE 25 MAY 1970
1 FAMC @F3@
1 MAC
0 NOTE This Tags(MAC) is not existed.

Check Marriage Date		
Acceptance Test: T05	Priority: 2	Story Points: 3
As a user, I want this system to check if the divorce date and marriage date are correct So that one husband companied with only one wife.		

Test:
0 @I12@ INDI
1 NAME Brand /Peter/
1 BIRT
2 DATE 20 SEP 1980
1 FAMC @F5@
1 FAMS @F6@
1 FAMS @F7@

0 @I13@ INDI
1 NAME Annie /Peter/
1 BIRT
2 DATE 15 AUG 1982

1 FAMC @F4@
1 FAMS @F6@

0 @F6@ FAM
1 HUSB @I12@
1 WIFE @I13@
1 MARR
2 DATE 17 ORC 2005
1 DIV
2 DATE 19 JUL 2010

0 @F7@ FAM
1 HUSB @I12@
1 WIFE @I11@
1 MARR
2 DATE 5 Orc 2009
0 NOTE The newer marriage date is before the divorce date.

Check Surname Format		
Acceptance Test: T13	Priority: 2	Story Points: 1
As a user, I want this system to check if surname is enclosed by "/"s So that we can get the surnames correctly.		

Test:
0 @I14@ INDI
1 NAME Lily /Wang
1 BIRT
2 DATE 14 MAY 1970
1 FAMC @F5@
0 NOTE The surname is not enclosed by "/"s

Check MARR Date		
Acceptance Test: T14	Priority: 2	Story Points: 1
As a user, I want this system to check the marriage event date of every couple So that every marriage date is later than the husband's and wife's birth-days.		

Test:
0 @I15@ INDI
1 NAME Woody /Liu/
1 BIRT
2 DATE 13 Feb 1960
1 FAMC @F7@
1 FAMS @F9@

0 @I16@ INDI

1 NAME Mary /Zhu/
1 BIRT
2 DATE 9 Nov 1962
1 FAMC @F8@
1 FAMS @F9@

0 @F9@ FAM
1 HUSB @I15@
1 WIFE @I16@
1 MARR
2 DATE 28 SEP 1959
0 NOTE The date is before husband's and wife's birthdays.

Check DIV Date		
Acceptance Test: T15	Priority: 2	Story Points: 1
As a user, I want this system to check divorce event date So that we can make sure it is later than is couple's marriage date.		

Test:
0 @I17@ INDI
1 NAME Xiyi /Bian/
1 BIRT
2 DATE 24 DEC 1940
1 FAMC @F10@
1 FAMS @F12@

0 @I18@ INDI
1 NAME Liu /Fan/
1 BIRT
2 DATE 10 NOV 1942
1 FAMC @F11@
1 FAMS @F12@

0 @F12@ FAM
1 HUSB @I17@
1 WIFE @I18@
1 MARR
2 DATE 30 MAR 1962
1 DIV
2 DATE 26 Jan 1958
0 NOTE The divorce date is before the marriage date

Check Children's Birthday		
Acceptance Test: T16	Priority: 2	Story Points: 1
As a user, I want this system to check every child's birthday.		

So that it's before his/her parents' birthdays.

Test:
```
0 @I19@ INDI
1 NAME Peter /Fu/
1 BIRT
2 DATE 9 APR 1949
1 FAMC @F13@
1 FAMS @F15@

0 @I20@ INDI
1 NAME Penny /Pian/
1 BIRT
2 DATE 14 MAY 1950
1 FAMC @F14@
1 FAMS @F15@

0 @I21@ INDI
1 NAME Sam /Fu/
1 BIRT
2 DATE 18 JUN 1948
1 FAMC @F15@

0 @F15@ FAM
1 HUSB @I19@
1 WIFE @I20@
1 CHIL @I21@
1 MARR
2 DATE 31 MAR 1972
0 NOTE This child is earlier than parents' birthday
```
Test:
```
0 @I22@ INDI
1 NAME Tim /Brown/
1 BIRT
2 DATE 15 JUN 1954
1 FAMC @F16@
1 FAMS @F18@
```

Check Surnames in Each Family		
Acceptance Test: T17	Priority: 2	Story Points: 2
As a user, I want this system to check surnames of every member in each family So that we can make sure all the members except the women who are married have the same surname.		

Test:
```
0 @I23@ INDI
1 NAME Lucy /Luke/
1 BIRT
```

2 DATE 20 JUL 1955
1 FAMC @F17@
1 FAMS @F18@

0 @F18@ FAM
1 HUSB @I22@
1 WIFE @I23@
1 MARR
2 DATE 14 MAR 1975
0 NOTE Wife and Husband are not the same surname

Check FAMS		
Acceptance Test: T18	Priority: 3	Story Points: 1
As a user, I want this system to check the tag FAMS So that we can make sure every person who get married is in a certain family.		

Test:
0 @I24@ INDI
1 NAME Invy /Wang/
1 BIRT
2 DATE 20 JUL 1970
1 FAMC @F19@
1 FAMS @F20@
0 NOTE The person has a FAMS but doesn't get married.

Check CHIL and HUSB tags		
Acceptance Test: T19	Priority: 2	Story Points: 1
As a user, I want this system to check the birthdays of children and their parents So that children are younger than their parents.		

Test:
0 @I25@ INDI
1 NAME Jason /Smith/
1 SEX M
1 BIRT
2 DATE 12 DEC 1990
1 FAMC @F21@
0 NOTE Son of family F21

0 @I25@ INDI
1 NAME Will /Smith/
1 SEX M
1 BIRT
2 DATE 23 FEB 1991
1 FAMS @F21@

0 NOTE Father of this family F21

0 @F21@ FAM
1 HUSB @I25@
1 CHIL @I24@
0 NOTE this family's child is older than his father

Check DEAT tags		
Acceptance Test: T20	Priority: 1	Story Points: 3
As a user, I want this system to make sure death time of people are later than other event time(BIRTs, DIVs or MARRs) So that there is no logical mistake.		

Test:
0 @I26@ INDI
1 NAME Sue /Lee/
1 SEX F
1 BIRT
2 DATE 10 FEB 1800
1 DEAT
2 DATE 9 FEB 1800
0 NOTE Her death date is earlier than her birthday

Check FAMC and FAMS		
Acceptance Test: T21	Priority: 2	Story Points: 3
As a user, I want this system to check FAMS and FAMS do not point to the same family So that the wife or husband is not also the child in this family.		

Test:
0 @I27@ INDI
1 NAME Taylor /Swift/
1 SEX F
1 BIRT
2 DATE 21 MAY 1992
1 FAMS @F22@

0 @I28@ INDI
1 NAME Tom /Swift/
1 SEX M
1 BIRT
2 DATE 21 MAY 1992
1 FAMS @F22@

0 @F22@ FAM
1 HUSB @I27@
1 WIFE @I28@
0 NOTE This family's husband and wife are brother and sister.

Check HUSB WIFE tags		
Acceptance Test: T22	Priority: 2	Story Points: 3
As a user, I want this system to make sure whenever there is a family, there would be individuals of HUSB, WIFE which point to this family So that family records and individual records match.		

Test:
Duplicated

Check DATE format		
Acceptance Test: T23	Priority: 3	Story Points: 2
As a user, I want the day DATE tag represents exist So that there would not be date like "2010-2-31"		

Test:
0 @I29@ INDI
1 NAME Tom Hanks
1 SEX M
1 BIRT
2 DATE 30 FEB 1969
0 NOTE His Birthday is wrong

Check Parents' and Children's Birthdays		
Acceptance Test: T24	Priority: 2	Story Points: 1
As a user, I want the age gaps between parents and their children are not more than 100 years So that there would not be any logical errors.		

Test:
0 @I30@ INDI
1 NAME Mary /Lee/
1 SEX F
1 BIRT
2 DATE 28 OCT 1956
1 FAMS @F23@

0 @I31@ INDI
1 NAME Indiana /Jones/
1 SEX M
1 BIRT
2 DATE 22 NOV 1299
1 FAMC @F23@

0 @F23@ FAM
1 HUSB @I31@
1 CHIL @I30@