Project - 1

Data Structure: -

- Array List
- HashMap
- Tree Data Structure
- LinkedList
- OOPs concepts

Total Functionality in Program: -

- Add individual data
- Add relationship between 2 nodes
- Add media data
- Retrieve information about individuals in media
- Retrieve the information about relationship between any 2 nodes
- Find descendants and ancestors from the family tree
- Get report of various situation
- Etc.

Limitation: -

- We can find relation in terms of cousin's relation.

Overview: -

1. What comes into the program?

- We can find relationship between individuals using nearest common ancestor, degree of cousinship and degree of removal. Using that we can find the relation's name.
- We'll have the media archive and it store the Information about media like location, date, tags, trip name, all individuals in picture.
- We can get information like in how many media individuals is present, and can be found by tag name, trip name etc.
- Generally, we develop the tree database using that we can track all the required information about relationship between individuals and images of them along with their personal information.
- We can store data of individuals in tree database.

2. What transformations do I need to make to the data?
- While record the data of individuals, I can store the data in different format instead of all will be in string format. So, need to convert the data in that appropriate form.
- While record the media attribute, I can store the data indifferent format using object and after processing and accessing would be easy.

3. What part of the data is processed right away?
- When we ask the data of individuals then immediately after that we can add in tree database and keep in list for tracing of further information.
- After adding relation of parenting, children, dissolution we can process the request of finding relation of node.
- After storing the media archive information, we can make use of for the finding the detail from those pictures.

4. What part of the data do I need to keep longer?
- When individual will be added then those data will be in longer use because it's most efficient information for finding the relation between 2 nodes.
- Media information and relation between 2 node is also very crucial so that information is also required to store in persistent way.
- Those data will be stored in persistent manner so that in future we don't need to add entry every time.

5. What goes out of the program?
- We will not record the relation other than parent, children and Partnering dissolutions. Our program is fixed to record this kind of relation between nodes.

6. Who are the users and how will they use it?
- User is mainly who would track all data of their family along with all crucial information and relation between them.
- They can use it for storing and keeping track of data of themselves.

7. What is important for the solution to do?
- Generate tree data structure in which we can trace the relation of any two nodes and moreover, generate tree which has more than one parent.