;

Project: High-level breakdown analysis of the problem

Team Members

Meet Nitinbhai Patel

(B00899516)

Subject:

Software Development Concepts

Professor:

Mike McAllister

Overview

People's photographs and videos have risen as a result of the widespread use of digital photography, particularly from smart phones. Simultaneously, people are less likely to erase photos or videos they shoot as they have plenty of storage space. As a result, finding photos and videos becomes more difficult. Genealogy is well-known for finding and monitoring family links, but it lacks strong linkages to today's larger collections of photographs or to previously stored photographs that are now being digitized.

The aim of the project is to build a system that connects family tree information with the archive of pictures and metadata of the pictures.

High-level breakdown analysis of the problem

1. **What comes into the problem?**

   Following are the information that we need to take from keyboard
   - Information about the Individual
       i. Name of the person
       ii. Date and location of birth
       iii. Date and location of death
       iv. Note on the individual
       v. Gender
       vi. Occupation
       vii. Reference to source material
   - Relations for the individuals
       i. Name of parent
       ii. Name of child
       iii. Partner Name 1
       iv. Partner Name 2
   - Information about media archive
       i. Name of the media (picture or video) stored in harddrive
       ii. Date on which the picture was taken
       iii. Location of the picture (It includes name of any place, city name, province, or country name)
       iv. Tags for the pictures
       v. Name of the individuals seen in the pictures

2. **What transformations do I need to make to the data?**
   - We are storing the Person Identity (It includes name, date and location of birth, date band location of death, notes on individual, gender, occupation, references to source material) into the database and the relations in the family tree. Then we link the family tree information with an archive of pictures and the metadata of the pictures.

3. **What part of the data is processed right away?**
   - No data is processed right away. Because we are storing the person identity into the database and the relation in the family tree. We are also storing the data related to media in the database So, all this requires lots of processing.

4. **What part of the data do I need to keep longer?**
   - All the data regarding person identity and data related to media needs to be stored for longer period.

5. **What goes out of the problem?**
   Reporting function
   - When the name of person is provided, the method will locate that individual in the family tree
   - When the id of person is passed, the method will return the name of an individual
   - When the field is passed, the method will return the file name of media file associated with file identifier.
   - When the name pf two individual is passed, the method will return the report on how two individuals are related.
   - When person and generations is passed in descendants' method, the method will report all descendants in the family tree who are within generations of the person
   - When person and generations is passed in ancestors' method, the method will report all ancestors in the family tree who are within generations of the person
   - When person is passed in notesAndReferences method, the method will return list of string containing notes and references on the individual.
   - When we pass the tags, startDate, endDate in the findMediaByTag methods, the method will return set of media files linked to the given tag whose dates fall within the date range.

- When we pass the location, startDate, endDate in the findMediaByLocation methods, the method will return set of media files linked to the given location whose dates fall within the data range.
- When we pass set of people, startDate, endDate in finIndividualsMedia method, the method will return list of media files that include any of individual given in the set of people whose dates fall within the date range.
- When we pass person in findBiologicalFamilyMedia method, the method will return list of media files that includes the specified person's immediate children

6. **What assumptions can I make?**
   - name, tag, startDate, endDate and location are given as string
   - id and generations are given as integers

7. **What constraints exists?**
   - I didn't find any constraints.

8. **Are there strange cases to handle?**
   - There are several strange cases we need to handle while dealing with reporting function. Because in reporting function there are some situations where users pass the information that doesn't exists in the database.

     For Example: If user wants to find an individual in the family tree, then the user will pass the name of individual in findPerson method, and the method will locate the individual in the family tree. In this case if the user passes the name of an individual that doesn't exists then we need handle this case.

     So, there are several other such kind of cases exists and we need to handle that.

9. **What is important for the solution to do?**
   - Nothing beyond the given output constraint.