

Author: Shivangi Ajaykumar Bhatt

B00 # : B00863408

Subject Code: CSCI 3901

Date: Nov 11th, 2021

Project Milestone#: 1

Test cases and plan of feature development

1. People

PersonIdentity addPerson(String name)

- name is null.
- The name is empty.
- The name has one character.
- The person is not added to the family tree database.
- The person is already added to the family tree database.

Boolean recordAttributes()

- The person is null.
- attributes are null.
- There are no attributes.
- There are one attributes
- There is more than one attribute.
- Record an attribute if a person does not exist in the database.
- Add the map of attributes where none of the keys are added to the database.
- Add the map of attributes where some keys are already added to the database.
- Add the map of attributes where all the keys are already added to the database.
- Add the map of attributes where none of the key-value pairs are already added to the database.
- Add the map of attributes where some of the key-value pairs are already added to the database.
- Add the map of attributes where all the key-value pairs are already added to the database.

Boolean recordReference()

- Person is null.
- Reference is null.
- The reference is empty.
- Record a reference when there are no references saved.
- Record a reference when there already is one reference saved.
- Record a reference when there is more than one reference saved.
- Record a reference if a person does not exist in the database.
- Record a reference that is not added to the database.
- Record a reference that is already added to the database.

Boolean recordNote()

- Person is null.
- The note is null.
- The note is empty.
- Record a note when there are no notes saved.
- Record a note when there already is one note saved.
- Record a note when there is more than one note saved.
- Record a note if a person does not exist in the database.
- Record a note that is not added to the database.
- Record a note that already exists in the database.

Boolean recordChild()

- Parent is null.
- The child is null.
- Record a parent/child relationship when there is no relation saved.
- Record a child where the parent does not exist in the database.
- Record a child when the child does not exist in the database.
- Record a parent/child relationship when no relation is mentioned between the given person in the arguments.
- Record a parent/child relation when a relation is already mentioned between the given person in the arguments.

Boolean recordPartnering()

- Partner1 is null.
- Partner2 is null.
- Record a partnering relation when there is no relation saved.
- Record a partnering where one of these conditions exists:
 - Partner 1 does not exist
 - Partner 2 does not exist
 - Both partner 1 and partner 2 do not exist.
- Record a partnering when no relation is mentioned between the given person in the arguments.
- Record a partnering when a relation is already mentioned between the given person in the arguments.

Boolean recordDissolution()

- Partner1 is null.
- Partner2 is null.
- Record a dissolution partnering relation when there is no relation saved.
- Record a dissolution where one of these conditions exists:
 - Partner 1 does not exist
 - Partner 2 does not exist
 - Both partner 1 and partner 2 do not exist.
- Record a dissolution when there is no partnering relation between the given person in the arguments.
- Record a partnering when there is a partnering relation between the given person in the arguments.

2. The Media Archive

FileIdentifier addMediaFile(String fileLocation)

- fileLocation is null.
- fileLocation is empty string.
- fileLocation is null or empty
- Add a Media file that is not added to the media archive.
- Add media file that is already added to the media archive

Boolean recordMediaAttributes()

- The fileIdentifier is null.
- attributes are null.
- There are no attributes.
- There is one attribute
- There is more than one attribute.
- Record an attribute if a fileIdentifier does not exist in the database.
- Add the map of attributes where none of the keys are added to the database.
- Add the map of attributes where some keys are already added to the database.
- Add the map of attributes where all the keys are already added to the database.
- Add the map of attributes where none of the key-value pairs are already added to the database.
- Add the map of attributes where some of the key-value pairs are already added to the database.
- Add the map of attributes where all the key-value pairs are already added to the database.

Boolean peopleInMedia()

- The fileIdentifier is null.
- The list of people is null.
- The list of people is empty.
- The list has no person.
- The list has one person
- The list has more than one person.
- Record the people in Media if a fileIdentifier does not exist in the media archive database.
- Add the list of people where no person exists in the family database.
- Add the list of people where some person exists in the family database.
- Add the list of people where all exist in the family database.
- Add the list of people where no people are recorded in media.
- Add the list of people where some people are recorded in media.
- Add the list of people where all people are recorded in media.

Boolean tagMedia()

- The fileIdentifier is null.
- The tag is null.
- The tag is empty.

- Tag a media when there is no tag saved.
- Tag a media when there already is one tag saved.
- Tag a media when there is more than one tag saved.
- Tag a media if a person does not exist in the media archive database.
- Tag a media that is not added to the media archive database.
- Tag a media that already exists in the media archive database.

3. Reporting

PersonIdentity findPerson(String name)

- The name is null or empty.
- The name has one character
- The name has more than one character
- Find a person that does not exist for the given name
- Find a person that exists for the given name
- Find a person when more than one person exists for the given name

FileIdentifier findMediaFile(String name)

- The name is null or empty
- The name has one character
- The name has more than one character
- Find a media that does not exist for the given name
- Find a media that exist for the given name
- Find a media when more than one person exists for the given name

String findName(PersonIdentity id)

- Id is null
- Return name if id exist
- Return name if id does not exist

String findMediaFile(FileIdentifier fileId)

- fileId is null
- Find media file if fileId exist
- Find media file if fileId does no exist

BiologicalRelation findRelation(PersonIdentity person1, PesonIdentity person2)

- Person1 is null.
- Person2 is null.
- Find a relation when one of these conditions exists:
 - Person1 does not exist
 - Person2 does not exist
 - Both Person1 and Person2 do not exist.
- Find a relation when there is no relation between the given person in the arguments.
- Find a relation when there is a relation between the given person in the arguments.

Set<PersonIdentity> descendants(PersonIdentity person, Integer generations)

- The person is null.
- The person does not exist in the database.
- Generations are less than 0.
- Generations are 0.
- Generations are greater than 0.
- There are no descendants.
- There is 1 descendant.
- There is more than 1 descendant.

Set<PersonIdentity> ancestores(PersonIdentity person, Integer generations)

- The person is null.
- The person does not exist in the database.
- Generations are less than 0.
- Generations are 0.
- Generations are greater than 0.
- There are no descendants.
- There is 1 descendant.
- There is more than 1 descendant.

List<String> notesAndReferences(PersonIdentity person)

- Person is null.
- The person does not exist in the database.
- There are zero notes and references
- There are more than zero notes and references

Set<FileIdentifier> findMediaByTag(String tag , String startDate, String endDate)

- The tag is null or empty.
- startDate is null or empty
- endDate is null or empty
- startDate is less than endDate
- startDate and endDate are same
- startDate is greater than endDate
- The tag does not exist for any media
- Tag exists for one media
- Tag exists for more than one media

Set<FileIdentifier> findMediaByLocation(String location, String startDate, String endDate)

- Location is null or empty
- startDate is null or empty
- endDate is null or empty
- startDate is less than endDate
- startDate and endDate are same
- startDate is greater than endDate
- Media does not exist for the given location
- One media exist for the given location
- More than one media exists for the given location

List<FileIdentifier> findIndividualsMedia(Set<PersonIdentity> people, String startDate, String endDate)

- People is null
- startDate is null or empty
- endDate is null or empty
- All the people in set exist in the database
- Some people in the set does not exist in the database
- No people in the set exist in the database
- Some people in the set exist in the database
- All people in the set exist in the database

List<FileIdentifier> findBiologicalFamilyMedia(PersonIdentity person)

- Person is null
- A person does not exist in the database
- A person does not have immediate children
- Person's immediate children do not have any media
- Person's immediate children have one media
- A person's immediate children have more than one media.

Plan of feature development

1. External documentation: Nov 17th
2. Setting up the database and basic project setup: Nov 18th
3. Class Family tree, its methods, and implementation: Nov 27th
4. Class Biological relation, its methods, and implementation: Nov 29th
5. Implementation report and git submission: Nov 30
6. Class Media Archive and its methods: Dec 2
7. Reporting methods: Dec 6th
8. Testing and re-iterating through the development process to improve functionalities and eliminate bugs: Dec 10th
9. The final draft of all the internal and external documentation: Dec 12th
10. The final draft of the whole project: Dec 14th