**Project name:**   
Galaxy Online

**Description:**

Social network for a school environment in order to reduce safe guarding issues by monitoring what students are exposed to on the internet. It would also be used to limit monitor foul language that students are exposed to and would also be used in order to allow year 7 students who are new to the school to settle into a new environment by being able to make friends easier with students in the school.

**Features:**

* users may like/dislike posts
* Post multimedia (images, video, text etc.)
* Add/ask to be friends/followers
* repost other posts
* Recommend people to be friends in the same year/living area/interests/hobbies.
* On admin page (provided by using Django or would have to create if I use flask) you could use filters to filter posts by name, date, words in post, students year group etc.

**Objectives:**

* Load website
* Make webpage responsive when zooming in and out
* Load multimedia on website
  + Checking that file path exists on users computer when uploading file
* Redirected to webpage based on buttons clicked:
  + Login to main page
  + Signup to login page
  + Logout to login page
* Save information to login and signup database
  + Hash sign up details when saving to database
  + When password is changed assign new password to user account
* Retrieve information from login and signup database
* Like/dislike posts
  + Buttons highlight and work when clicked
* Create posts
  + Upload multimedia or text
    - Restrict file upload size (cant upload media above 50kb)
  + Search for posts by filter
    - Poster name
    - Date
    - Keyword in post
* Save posts to database
  + Contain information about post
    - Name of post
    - Date posted
    - Name of user who posted
* Access information from posts database
* Add information to comment database for each post
  + Name of user who commented
  + Date of comment
* Access information from comment database
* Create graph
  + Based on hobbies/year group/area you live in
* Use graph to recommend friends:
  + Display different lists for each type of recommendation
    - List for recommendations of friends by hobby, year group, area you live in one under the other
  + Buttons to add or remove friend from list
* Admin page
  + Filter by
    - By keyword
    - Date
    - Poster name
    - Year group of poster
  + Delete posts

**Technology I need:**

* Can use html for buttons, multimedia
* Django for linking python and html(web frameworks)
* Use python for accessing database’s via sql lite
* Table for login
* Table for user information
* Table for posts
* Table for comments
* Table for relationships (friends)/contacts
* Table for messages
* Table for profile
* Django or flask to deploy website – for web frameworks
* Graph algorithms to recommend friends(year/location/hobbies or interests)
* \* ADVANCEMENTS = use heroku to deploy social media network for production instead of development stage

**Tables:**

**1NF:**

**UserInformation** (UserID, Name, Date of Birth , Year Group, Interests, Address, Username, Password, Posts, Comments, Relationships)

|  |
| --- |
| UserInformation |
| Attributes: UserID  Name  Date of Birth  Year Group  Interests  Address  Username  Password  Posts  Comments  Relationships |

**2NF:**

**UserInformation** (UserID, First Name, Last Name, Date of Birth , Year Group, Interest, Postcode, Town, AccountID(fk))

**AccountDetails** (AccountID, Username, Password)

**Posts** (PostID, AccountID(fk), Content, Date of Post, Time of Post)

**Comments** (CommentID, PostID(fk), AccountID(fk), Content, Date of Comment, Time of Comment )

**Relationships** (RelationshipID, TimeOfRelationship)

**Friends** (FriendsID, AccountID(fk), RelationshipID(fk))

|  |
| --- |
| Friends |
| FriendsID  AccountID (foreign key)  RelationshipID(foregin key) |

|  |
| --- |
| Relationships |
| Attributes: RelationshipID  TimeOfRelationship |

|  |
| --- |
| UserInformation |
| Attributes: UserID  First Name  Last Name  Date of Birth  Year Group  Interest  Postcode  Town  AccountID(foreign key) |

|  |
| --- |
| Posts |
| Attributes:  PostID  AccountID (foreign key)  Content  Date of Post  Time of Post |

|  |
| --- |
| AccountDetails |
| Attributes:  AccountID  Username  Password |

|  |
| --- |
| Comments |
| Attributes: CommentID  PostID (foreign key)  AccountID (foreign key)  Content  Date of Comment  Time of Comment |

**3NF:**

**UserInformation**(UserID, First Name, Last Name, Date of Birth , YearID(fk), InterestsID(fk), Postcode ID(fk), Town ID(fk), AccountID(FK))

**YearGroup** (YearID, Year Group)

**Interests** (InterestID, Name)

Posts content would hyperlink to location of upload

**PostCode** (PostCodeID, Postcode)

**Town** (TownID, Town)

**AccountDetails** (AccountID, Username, Password)

**Posts** (PostID, AccountID(fk), Content, Date of Post, Time of Post)

**Comments** (CommentID, PostID(fk), AccountID(fk), Content, Date of Comment, Time of Comment )

**Relationships** (RelationshipID, TimeOfRelationship)

RelationshipID links the relationships and friends tables together

**Friends** (FriendsID, AccountID(fk), RelationshipID(fk))

|  |
| --- |
| Comments |
| Attributes: CommentID  PostID (foreign key)  AccountID(foreign key)  Content  Date of Comment  Time of Comment |

|  |
| --- |
| Friends |
| Attributes: FriendsID  AccountID (foreign key)  RelationshipID (foreign key) |

|  |
| --- |
| Relationships |
| Attributes: RelationshipID  TimeOfRelationship |

|  |
| --- |
| Posts |
| Attributes:  PostID  AccountID(foreign key)  Content  Date of Post  Time of Post |

|  |
| --- |
| AccountDetails |
| Attributes:  AccountID  Username  Password |

|  |
| --- |
| Town |
| Attributes:  TownID  Town |

|  |
| --- |
| PostCode |
| Attributes:  PostCodeID  Postcode |

|  |
| --- |
| Interests |
| Attributes: InterestID  Name |

|  |
| --- |
| YearGroup |
| Attributes:  YearID  Year Group |

|  |
| --- |
| UserInformation |
| Attributes:  UserID  First Name  Last Name  Date of Birth  YearID(foreign key)  InterestsID(foreign key)  Postcode ID(foreign key)  Town ID(foreign key)  AccountID(foreign key) |