

System Design for Project StackOverFlow

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Architecture diagram

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Class name: Login

Parent class (if any): None

Subclasses (if any): Authenticate

Responsibilities:

- *Allow the user to log in with their registered username and password

Collaborators:

- *Register

- *Database

Class name: Authenticate

Parent class (if any): Login

Subclasses (if any): None

Responsibilities:

- *Accesses the database and determines whether their username/password combination is correct

- *Redirect the user to the home page if the combination is correct

- *Prompt the user with an error message if the combination is wrong

Collaborators:

- *Database

Class name: Register

Parent class (if any): None

Subclasses (if any):

Responsibilities:

- *Allow the user to create an account on the site

- *Registering the user creates an entry in the database

- *Allows the user to choose their user name/ID/password

Collaborators:

- *Login

- *Database

Class name: Database

Parent class (if any): None

Subclasses (if any): None

Responsibilities:

- *Store the username/password combinations

- *Store new sets of username/passwords from registration

- *Stores User ID's that other users can use to connect with each other

- *Stores User friend list

Collaborators:

- *Login

- *Register

- *Add Friend

Class name: Player

Parent class (if any):None

Subclasses (if any)

Responsibilities:

- *Plays youtube videos from a supplied link at the same time with a partner

- *Allows the user to control the video (quality, start/stop, etc.)

Collaborators:

- *Database

Class name: add_fri

Parent class (if any):None

Subclasses (if any)

Responsibilities:

- *Allow the user to add other users as friends into their friend list

- *Update the database whenever the user added a friend,

Collaborators:

- *Database

Class name: remove_fri

Parent class (if any):None

Subclasses (if any)

Responsibilities:

- *Allow the user to remove other users from their friend list

- *Update the database whenever the user remove a friend,

Collaborators:

- *Database

Class name:Streamie-Server

Parent class (if any):None

Subclasses (if any)

Responsibilities:

- *Allow user to Login, Register, Manage Friend List

- *Update the database

Collaborators:

*Login, Register, Friend List

*Database

Class name: Chatroom

Parent class (if any):None

Subclasses (if any)

Responsibilities:

*Add/remove users to the chat room

*Send and view messages to another user

Collaborators:

*Friend List

*Database

Class name: User Profile

Parent class (if any): Login

Subclasses (if any): Modify User Profile

Responsibilities:

*View user profile information

*Link to edit user profile

Collaborators:

*Friend List

*Database

Class name: Modify User Profile

Parent class (if any): User Profile

Subclasses (if any): None

Responsibilities:

*View user profile information

*Edit user profile

*Update new profile in database

Collaborators:

*Friend List

*Database

Class name: synced-players

Parent class (if any): None

Subclasses (if any): None

Responsibilities:

- *Stream Youtube videos

- *Update this Player page's Youtube player's status, user counts, and video source to sync-video-server

- *Receive other Player pages' Youtube player's status, user counts, and video source from sync-video-server

- *React accordingly to data received from sync-video-server

Collaborators:

- *sync-video-server

Class name: sync-video-server

Parent class (if any): None

Subclasses (if any): None

Responsibilities:

- *Receive Player pages' data about players' status, user counts, and video source to sync-video-server

- *Broadcast received data from one Player page to all other Player pages

- *Log illegal requests and ignore them

Collaborators:

- *synced-players

