CourseHub

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Basic Architecture

Web Application

Front-End _____(HTML/CSS)

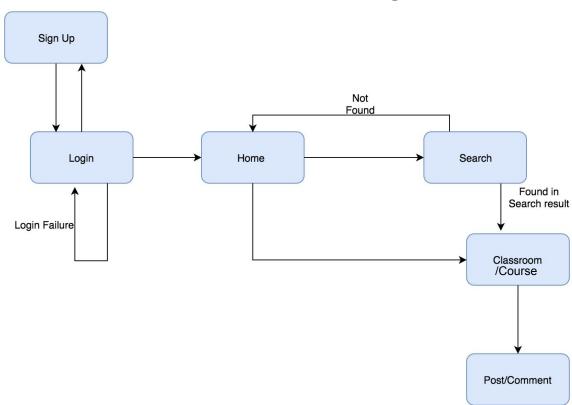
Back-End (Django Framework)

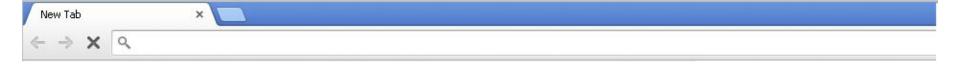
Back-End (Apache HTTP Server using mod_wsgi) Relational Database (MySQL or PostgreSQL

Workflow Design

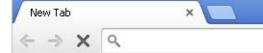
| Login/Sign Up | User Homepage | Classroom | Create Post |
|---|---|--|--|
| 1-Sign in/Sign up with username/password 2-Return login result 3-Page for sign up/forgot password | 1-Load all class forums user is enrolled in from RDS 2-Search for class forums for user to join, which will be fetched from RDS 3-Load all user statistics from RDS | 1-Fetch all posts from RDS. 2-Enable user to join the classroom, adding them to the database 3-View specific post, fetch all comments in that post. 4-Comment on specific post | 1-User can create own post for forum 2-Post is added to RDS, once validated |

Workflow Diagram











List of courses: CSCI 499













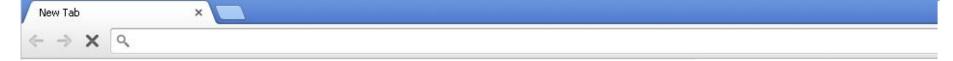


List of courses within the selected subject





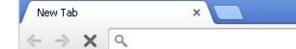






Course

List of questions related to course





Title

Question

Comments/Answers

Securing Information

Minimum of 8 characters Sign-up **Password Requirements** At least 1 uppercase letter At least 1 number Credentials match associated Login General Authentication password stored in database Use SHA-2 with salt and map Database Safe Credential Storage username to hashed password

| Username | Password | Hashed Password |
|-----------|----------|---------------------|
| Student_1 | abc123 | SHA-2(abc123zP@6!X) |