Github link: https://github.com/patrick-huynh/WatClass/tree/master

R1:

We will not be using a pre-existing dataset, rather creating a dataset from scratch. The users of the application will be students, instructors, and admins. The primary target is UW students and instructors, as the courses will all be undergraduate UW courses. The administrators of the database systems will be us (i.e. application developers); users won't be allowed to modify the database. Some features we would like to support are course filtering, course recommendation system, course lists, and maybe more depending on time constraints.

R2:

We plan to use our local machines (Mac and Windows) to work on the project, and use GitHub for version control. The application will be offered through a Node application, with a react frontend, and a MySQL (SQL) database, through a web interface built using React/Next.

R3:

The plan is to construct the sample dataset using course data on UWFlow, performing AI analysis (for course ratings), and importing it using SQL statements.

R5:

a) The data will populate all tables. Assumptions are that all data will be valid and not null if they are required, as we will be generating the data. List of all assumptions of data in tables, where the primary key is bolded:

Courses:

- **cid (string)** -- course code in the form "code number" like ("CS348")
- course name (string)
- subject (string) -- ex, "MATH", "SCIENCE", "GEOLOGY"

Questions:

- **qid (int)**
- question (string)

CourseRatings

- **cid (string)** -- exists in Courses
- analytical thinking (int) -- between 1-10
- creativity (int) -- between 1-10
- collaboration (int) -- between 1-10
- difficulty (int) -- between 1-10

Users:

- **Uid (int)**
- name (string)
- term (string) -- one of (1A, 1B, 2A, 2B, 3A, 3B, 4A, 4B)
- role (string) -- one of (student, professor, admin)

NextQuestionLookup:

- **Qid (int)** -- exists in Questions
- **ExpectedAnswer (int)** -- between 1-10
- nextQuestion (int) -- references a question id (qid)

Answers:

- **Uid (int)** -- exists in Users
- **Qid (int)** -- exists in Questions
- answer (int) -- between 1-10

CourseTaken:

- **cid (string)** -- exist in Courses
- **uid (int)** -- exist in Users

CourseWishlist:

- **Cid (string)** -- exist in Courses
- **uid (int)** -- exist in Users

CourseRecommended:

- **cid (string)** -- exist in Courses
- **uid (int)** -- exist in Users

b) Refer to “milestone-1/diagrams/R5b.png” on the github

c) Refer to “milestone-1/diagrams/R5c.png” on the github

R6:

a) A user will be able to see average stats of all courses per individual subject to get a general overview of what the courses offered in a specific subject is like. A user can select the Courses tab on the navigation bar and be presented with a breakdown of general course metrics.

b)

Query template	SELECT c.subject, AVG(r.difficulty), AVG(r.analyticalThinking), AVG(r.creativity), AVG(r.trivia), AVG(r.collaboration) FROM (CourseRatings r JOIN Courses c on r.cId = c.cId) GROUP BY c.subject;
Sample query & output	See test-sample-R6

R7:

a) A user will be able to add a new course to the database. The users of this feature will be the instructors and admins.The user will navigate to the “add a course” selection and be greeted with a form to fill out the information of the course to be added. They will also need to add the ratings to describe various aspects of the course. The course & course info will be added when they hit submit.

b)

Query template	INSERT INTO
	  Courses (cId, name, subject)
	VALUES
	  (a, b, c);
	
	INSERT INTO
	  CourseRatings (
	  cId,
	  analyticalThinking,
	  creativity,
	  collaboration,
	  trivia,
	  difficulty
	  )
	VALUES
	  (a, n1, n2, n3, n4);

Sample query & output	See test-sample-R7

R8:

a) When doing the course recommendation questionnaire, the app will need to give the next question in the questionnaire based on the current question the user has answered and the specific answer they gave.

b)

Query template	SELECT
	  qid,
	  questionText
	FROM
	  Questions
	WHERE
	  qid = (
	  SELECT
	  nextQuestion
	  FROM
	  NextQuestionLookup
	  WHERE
	  qid = a
	  AND expectedAnswer = b
	  );

Sample query & output	See test-sample-R8

R9:

a) A user will be able to make updates to an existing course's information. The users of this feature will be the instructors and admins. The user will have a modify button next to the course, clicking it will present a prefilled form where the user can make edits and confirm the changes.

b)

Query template	UPDATE Courses SET name = a WHERE name = b;
Sample query & output	See test-sample-R9

R10:

a) A user will be able to see the name of all course offerings along with information about that course. The users of this feature will be everyone (student, instructor, and admin). A user can select the Courses tab on the navigation bar and be presented with all the courses being offered in a card component.

b)

Query template	SELECT * FROM Courses;
Sample query & output	See test-sample-R10

R16: Milestone 1 Contributions

Rainbow Li: 20903853

- R5

Ed: 20960761

- C1, C2, C3 queries corresponding to R8, R9, R10

Patrick Huynh: 20896258

- R1-3 and R6-9

Edward: 20946799

- C1, C3 queries corresponding to R6, R7, C5

Aadar: 20876832

- Acquiring sample dataset

Github Repo: https://github.com/patrick-huynh/cs348-undergrad-planner