

University of British Columbia, Vancouver

Department of Computer Science

CPSC 304 Project Cover Page

Milestone #: 3

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Group Number: 50

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By typing our names and student numbers in the above table, we certify that the work in the attached assignment was performed solely by those whose names and student IDs are included above. (In the case of Project Milestone 0, the main purpose of this page is for you to let us know your e-mail address, and then let us assign you to a TA for your project supervisor.)

In addition, we indicate that we are fully aware of the rules and consequences of plagiarism, as set forth by the Department of Computer Science and the University of British Columbia

Project Summary

Our application aspires to provide an engaging online environment that **allows users to comprehensively learn new languages** with fellow passionate learners while being assisted by various learning resources. Our focus extends beyond mere language acquisition - we strive to facilitate a comprehensive language learning journey. Given this high-level goal, we consider the domain of our application to be **language learning**.

Timeline & Task Breakdown

Welcome/Home Page - Sohbat

Task 1: Interface for users to create an account with valid information (according to DB design)

Timeline: March 15 - 22

- Determine the layout and design of the welcome/create account section.
- Decide on the placement of text inputs and buttons on the GUI.

GUI Components:

- Implement the text input fields for User attributes (username, password, age).
- Create the "Start Learning Journey" button and integrate its functionality of adding the user to the DB and assign a unique User Id or allow the user to choose the username.
- Ensure proper validation for input fields (eg username uniqueness).

Task 2: Interface for users to act as a home section to connect to other sections and choose languages

Timeline: March 23 - April 5

- Plan the layout and design of the Home Section.
- Determine the placement and appearance of the language selection dropdown and "Submit" button, "View Current Languages" button, "Practice Language Section" button, and "Language Interaction Section" button.

GUI Components:

- Implement the dropdown menu for selecting language and dialect combinations.
- Create the "Submit" button and integrate its functionality to initiate language selection.
- Ensure the dropdown menu displays all available language and dialect options dynamically.
- Implement a "View languages" button that allows us to view and edit the languages we are currently learning.
- Implement a "Practice language section" button that allows us to move to the section where we can get the resources for any language practice.
- Implement a "Language Interaction section" button that allows us to move to the section where we can get language expert information assigned of our choosing and edit forum interaction.

Language Practice Page - Annie

Task 1: Interface for the user to input Language and Dialect to search for resources.

Timeline: Mar 15 - Mar 22

GUI Components:

- Text inputs for language and dialect (INSERT statements)

- Implement a "search" button to display relevant resources (Projection)
- Implement a dropdown section that displays the description of the resources and the author, developer, or URL (Projection)

Task 2: Interface for the user to choose and complete exercise questions.

Timeline: Mar 23 - Apr 5

GUI Components:

- Text inputs for language and dialect (INSERT statements)
- Implement a "start exercise" button to display a dropdown menu of relevant exercises (Projection). Each menu option will have 3 buttons to implement:
- An info (i) button that displays the purpose of the exercise, time limit, and pending score (Projection)
- An x button to DELETE any exercises the user doesn't plan on doing
- An arrow button that redirects the user to another page that displays a series of questions
- Click "submit" or "mark completed" button to UPDATE the completion date
- Could change the color of the top bar to green or red to indicate whether the user completed the exercise within the time limit or not (Projection)

Language Interaction Page - Romina

Task 1: Interface for the user to view, select, and remove their assigned expert.

Timeline: Mar 15 - Mar 22

- Will include an insert operation here as a part of enabling the user to select an expert.
- Will include an update operation here as a part of enabling the user to change their assigned expert.
- Will include a delete operation here as a part of enabling the user to remove their assigned expert.
- Will include a select operation here as a part of filtering the experts by their specializations.
- Will include a projection operation here as a part of displaying the available experts to the user.

GUI Components:

- View all available experts by clicking the "View Experts" button and provide the option to filter experts by their specialization.
- View your current expert by clicking the "View My Expert" button.
- Remove your currently assigned expert by inputting their email into a textbox and clicking the "Remove My Expert" button.
- Get assigned to an expert by selecting an available expert from the dropdown options and then clicking the "Select this Expert" button.
 - Note that a user can be assigned to at most one expert at a time, so they must first remove their current expert before attempting to select a new expert.

Task 2: Interface for the user to view, join, and leave forums.

Timeline: Mar 23 - Apr 5

- Will include an insert operation here as a part of enabling the user to join a forum.
- Will include a delete operation here as a part of enabling the user to leave a forum.

- Will include a projection operation here as a part of displaying the available forums to the user.

GUI Components:

- View all available forums by clicking the “View Forums” button.
- View all the forums you’ve joined by clicking the “View My Forums” button.
- Join a new forum by selecting a forum from the dropdown options.
- Leave a forum you’re currently a part of by inputting its URL into a textbox and clicking the “Leave Forum” button.

Other Tasks - Sohbat, Annie, Romina

Task 1: Create a single SQL script to create all the tables and data in the database

Timeline: Mar 15 - Mar 22

Task 2: Connect each section to the DB

Timeline: Mar 15 - Mar 29

Task 3: Ensure that all sections are well integrated/connected to each other

Timeline: Mar 15 - Apr 5

Task 4: Ensure that all SQL operations required for Milestone 4 are included in the project

Timeline: Mar 15 - Apr 5

Potential Challenges

After consulting with our TA and learning about potential asynchrony issues that may be encountered with Java/Oracle-based projects, we decided to switch to our tech stack to use PHP/Oracle instead. Given that we are all new to using PHP, we anticipate that this may cause a slight challenge as we start implementing our project.

In addition to the above, given that we haven’t covered assertions in our lectures, we also won’t be able to capture some of the participation constraints that appeared in our ER model within our SQL implementation. This will cause a slight challenge since we are not able to represent all the integrity constraints inherent to our application within our implementation.