<Code Karin>

<Virtual Classroom>
Glossary

Version <1.4>

Revision History

Date	Version	Description	Author
<1/10/21>	<1.0>	<first iteration, initial documentation>	<Code Karin Team>
<02/11/22>	<1.1>	<small initial fixes to understand document>	<Kate Brayshaw
<03/16/22>	<1.2>	<fixed the table of contents>	<Kate Brayshaw>
<03/21/22>	<1.3>	<Final words edits to entire document>	<Kate Brayshaw>
<03/23/22>	<1.4>	<Completed System Architecture section>	<Kate Brayshaw>

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Glossary

1. Introduction

This document will provide an overview of terminologies and technologies used throughout the Karin Virtual Classroom project. The terms listed here are both internal names used by the development team to ensure clarity between programmatic modules and terms for proprietary products used in development such as Amazon Web Services terminology.

1.1 Purpose

The purpose of this glossary is to provide unambiguous declarations of terms for use by the development team and future developers and customers.

1.2 Scope

This document will cover terminologies from the following fields:

- HTML
- JavaScript
- CSS
- Java SDK
- Amazon Web Services

1.3 References

1. AWS Documentation - https://docs.aws.amazon.com/

1.4 Overview

The following documentation contains definitions for key terms and UML structure. It first addresses definitions in order of how a user initially runs through the website. First introducing login, followed by how a student can participate in the coding contest, concluded with the ability to access discussion boards. Once all definitions have been defined this documentation ends with UML Stereotypes.

2. Definitions

2.1 <Login/Sign Up/Sign Out>

2.1.1 <Login>

Login requires password and user email. The password will have to meet some specific requirements for security purposes.

2.1.2 <Sign Up>

The professor will send a link and the students will be able to use the link to sign up using any kind of email and set a password that meets the password requirements.

2.1.3 <Sign Out>

The students and professor can sign out completely.

2.2 <Anonymous>

Anonymous is the term in the case when students do not want their username to be public in the discussion board or private message with the professor. They can choose an alias.

2.4.1 <Set Alias>

Alias is the anonymous name that students can choose.

2.4.2 <Anonymous Mode>

After choosing an alias, students can set their mode to anonymous so that other users will see their alias instead of their original username. Alias is not an username and cannot be used to login. Alias name is not valid for authentication and authorization.

2.3 <Practice>

Practice is the term for the coding exercise in this platform. We use practice to distinguish from "assignment", which is another kind of exercise but will be done at home by students. Right now, practices on this platform can only be done in class.

2.4 <Hint>

Hint is the extra useful information that students may receive from the professor in each practice to make it easier to complete the practices.

2.5 <Run>

Run is a button students use to submit their code to run by the compiler with test cases provided by the professor. The student can run unlimited times and can view which test cases they pass or not pass but not the code of the test cases.

2.6 <Solution>

Solution is the standard answer for each practice. The answers of students do not have to be exactly the same as the solution to receive full credit. Solution for each practice is only available once every student completes the practice.

2.7 <Test case>

Test cases are the input that will be provided by the professor to verify if the codes are right or not. Inputs of test cases are not visible by students. Each practice will have a set of test cases.

2.8 <Rank>

Rank is the order of students finishing the practice. The rank is in high to low order. The rank is based on the completion time of students, meaning that the student with shorter completion time will be higher in the rank. Completion time is end time minus start time.

2.9 <Private Message>

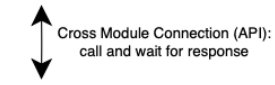
The students are able to create a conservation and send messages to the professor with their usernames or their alias. The professor can answer the message. If there are unseen messages, users will receive notifications.

3.0 <Discussion Board>

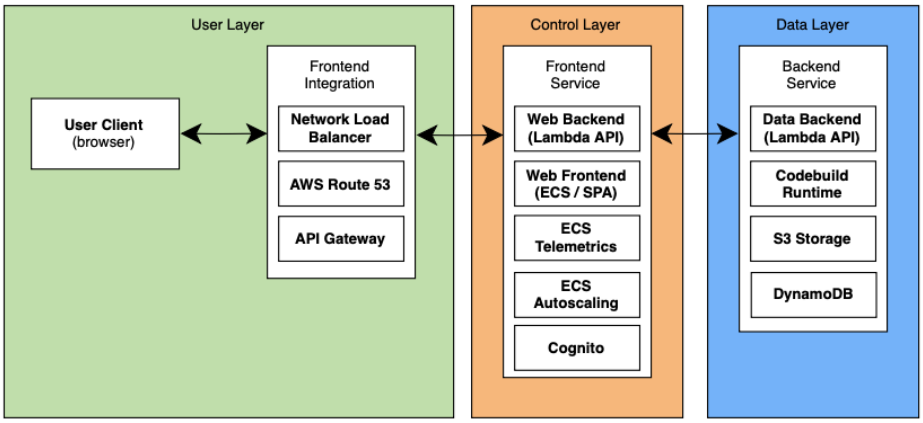
The discussion board is an open forum for students and the professor to post questions and reply to posts. The professor can delete comments and posts that violate the rules. The discussion board of each practice is only open after every student completes the practice.

3. System Architecture Diagram

The following is a conceptual overview of the proposed design for the Code Karin Virtual Classroom project. We include 2 service layers to guarantee calls are made and returned correctly in all cases of data transfer between entities. We include 2 backend layers to ensure that our application control logic is separate from our Unit Testing module. The Unit testing module is a core feature and the basis of the project and therefore should be given highest importance.

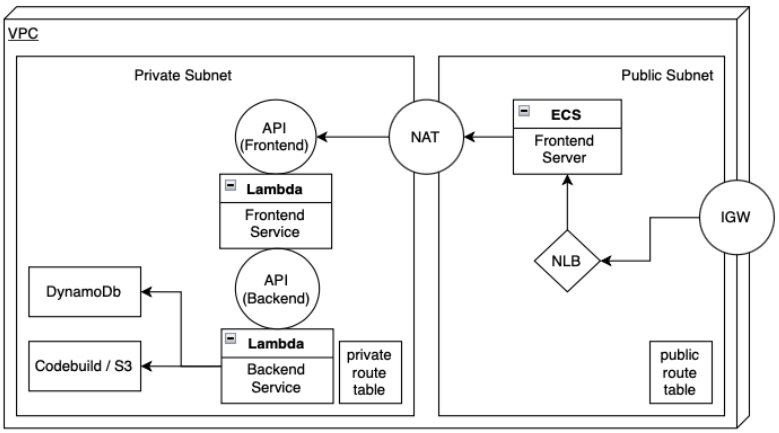


Layered Architecture



AWS VPC Diagram

The following is a proposed design for Virtual Private Cloud architecture on AWS. The VPC diagram entities correspond to the entities in the Black Box Diagram with a little more information about hosting technologies used.



Container Diagram