**RevSpeed**

Application Overview

RevSpeed is an online account management application for internet and broadband service provider customers. It allows new customers to easily sign up for services and existing customers to manage their accounts. It provides features like account registration and login, user profile management, browsing the internet and broadband plans and subscription management.

Core Functional Scope

As a user, I want to:

1. Register and create an account to access the services.
2. Login to my account to access and manage my services.
3. Create a basic profile with name, phone number, email, and address so my account is personalized.
4. Update my personal details so my profile is accurate.
5. Easily view internet and broadband plans so I can select the best option for me.
6. View my internet and broadband subscriptions so that I can keep track of my subscriptions.
7. Apply for a new internet and broadband plan that is best suited for me.
8. Opt out of a subscribed plan if I no longer require it.
9. Make monthly/quarterly/annual payments. – *Nice to Have*
10. Receive notifications about my account so that I am promptly informed of changes or issues (Payment due dates, changes to subscription plans, and surge outages). – *Nice to Have*

Standard Functional Scope

Registered users should be able to log in, change the password, and request for a forgotten password (will be sent to their registered email).

Definition of Done

* Working application demonstration.
* Sharing the associates’ code repo for technical evaluation with:
* ERD Diagram
* Architecture Diagram

Technologies to be used.

Core Java, Git Fundamentals, SQL, JDBC

Expectations

User Inputs:

1. Ability to accept the user inputs from console
2. Providing recommended format in which the user to key in the inputs
3. Validate the user given inputs for format and convert to appropriate type for application usage.

System outputs:

1. Use formatted outputs for better readability and understanding. E.g., currency and date values should be formatted well.
2. Display the reports in the appropriate format such as tables etc.

User Navigation:

1. Provide a number-based menu items for the user to navigate for different use cases
2. Handling user selections and providing appropriate screen / feature to the user

Validation and Error Handling:

1. Validate the user inputs for its types and format.
2. Display functional related user messages (either for input/error/output) - no system error codes or SQL error codes.
3. Handle the exceptions and errors gracefully.

Logging:

1. Ensure the application is using proper logging framework and methods.
2. Ensure the application’s log level is configured using configuration files so that it can be changed without changing the code.
3. Also ensure that the application logging is configured to output to the mentioned log file.

Testing:

1. Ensure sufficient test cases are written using appropriate testing frameworks.
2. Ensure the code coverage closed to be 80%

Security:

1. Ensure the SQL injection threat is taken care.

Coding Standard:

1. Use the industry coding standards and conventions.
2. Modular based code development for better reusability.
3. Ensure proper usage of resource objects such as database connectivity objects to avoid resource leakages.
4. Ensure proper usage of design patterns and application layering (such as Business Service, DAO Layer etc.) wherever applicable.