

## User Stories and Scenarios

**Feature: Pre-Test //After tutorial , if yes - sign up to tutorial to test to homepage**

**If no for tutorial, sign up to test to homepage**

As a student with prior experience, I would like the option to test out of subjects I am confident I know so that I can focus on the topics I am unfamiliar or struggling

Scenario: User has prior knowledge.

Given I have learned a few java concepts already

When I finish taking the pre-test

Then I should see what percentage I got relative to the sections.

When I see these percentages

Then I should have the option to skip a section in the game if I scored above 80% or above for that section.

**Feature: Completion Certificate**

As an ambitious student, I would like a certification of completion at the end to show my teacher and friends that I mastered the app

Scenario: User complete every challenge in the app

Given I have completed every level in the app

When I get to the very end

Then I should be presented with a certificate of completion within the achievements on my profile page.

When I see this certificate on my profile,

Then I should have the option to send it to myself through email.

**Feature: Progress Snapshot**

As a student, I would like to email myself my progress so that I can show people what I have accomplished

Scenario: User wants to see current progress

Given I have worked on a section and want to show my friend my progress

When I view my overall progress for each section

Then I should be presented with the option to email myself a snapshot of my current percentage completion on each section.

**Feature: Hints**

As a learner, I would like the option of hints so that I can figure out how to move ahead when I am stuck

Scenario: user is unable to complete a certain challenge

Given I am stuck on a particular level in the game,  
When I press on the tab labeled 'hints'

Then I should be able to access hints in order to help me progress further.

### **Feature: Easy Login**

As a lazy student, I would like to use my email to login in so I don't have to remember my username.

Scenario: User cannot remember username but remembers email address

Given I struggle to keep up with names

When I go to login to the application

Then I should have the option to login with my email instead of my username.

### **Feature: Bug Reporting**

As a customer, I would like to leave feedback so that I can report any bugs in the game.

Scenario: User encounters a bug in the application

Given I notice a particular glitch or error in the app

When I hit on the support tab on the bottom right of the screen

Then I should be able to submit a feedback response to the creators using my email.

### **Feature: Password Recovery //Attached to sign in**

As a forgetful student, I would like a forget password option so that I can have a way to still get in if I forget it

Scenario: User has forgotten his or her password

Given I have forgotten my password

When I am on the login screen

Then I should see an option for forgot password

When I click on the forgot password option

Then I should be redirected to a screen that asks for a valid email address

And allows me to send an email to that address

When I go into the email

Then I should be able to get back into the app and be prompted for a new password

When I type in my new password

Then I should be asked to type it in a second time for conformation and the password  
Should save.

When I go to login again

Then I should be able to successfully login after typing in the newly set password  
Once.

### **Feature: App tutorial**

As a simpleton, I would like to have a button that will show how to use the app so that I know how the app works

Scenario: User is not tech savvy

Given I'm not entirely tech savvy

When I open the app for the first time

Then I should be presented with an option to see how the app functions

When I hit yes to see this option

Then I should be given a step by step lesson on the features of the app and  
How to traverse it.

### **Feature: Security Email**

As a student, I would like to be emailed if multiple fail attempts occur so i can change my password if i need to.

Scenario: Three password attempts were failed

Given I am in the login screen

When I input three incorrect passwords

Then it should send me an email offering to reset my password

And it should prevent me from logging in for two minutes

When I check my email

Then I should have received an email offering to reset my password

And should have a link to reset my password

When i click the link

Then it should take me to a page where i can type in my new password

And should change my password as long as it meets the requirements

### **Feature: Level Repeat**

As a student, I would like to have the option to repeat levels so that i can further study if i feel i need to.

Scenario: After completing a lesson

Given I am on the homepage

When i click on a lesson i have completed

Then it should allow me to restart the lesson

### **Feature: No time limit**

As a student, I would like to have no time limit so i don't feel rushed while learning new material.

Scenario: Starting a lesson

Given I am on the homepage

When I click on a lesson

Then it should take me to the lesson

And there should be no time limit

**Feature: Erase data //Under profiles**

As a user, I want to erase my data, so that I can start fresh.

Scenario: All levels have been completed

Given I am on the homepage

When I click on profile

Then it should take me to the profile screen

When I click on 'erase my data'

Then it should ask me if I really want to erase my data

When I click on 'yes'

Then it should ask me again, and give me a final warning

When I click on 'yes' again

Then it should take me back to the homepage

And I should see that only lesson 1 of *Elementary Programming* should be unlocked

And the rest of the lessons and levels should be locked

**Feature: Recover username**

As a forgetful student, I want to be able to retrieve my username, so that I can use it to login.

Scenario: Forgot username login

Given I am on the login screen

When I click on 'forgot username'

Then it should take me to the forgot username screen

And prompt me to enter my email and submit

When I check my email

Then I should see an email from the app

And it should give me my username

**Feature: View higher levels**

As a student, I want to be able to see higher levels, so that I can be prepared.

Scenario: *Elementary Programming* level not yet completed

Given I am on the homepage

When I scroll down to the next section

Then I should see the next level *Selections*

When I scroll down even further to the next section

Then I should see the next level *Mathematical Functions, Characters, and Strings*

And so on.. Until the last level: *Single-Dimensional Arrays*

**Feature: Progress bar**

As a user, I want to see my progress in a progress bar, so that I know how far I have gotten in the levels.

Scenario: 1 of 4 lessons have been completed in *Elementary Programming* level

Given I am on the homepage

When I look below the level name

Then I should see that 25% of the progress bar has been filled up

### **Feature: Locked levels**

As a student, I want to see that the higher levels are locked, so that I know I still have to work on the previous levels.

Scenario: Completed only the first lesson of *Elementary Programming*

Given I am on the homepage

When I try to click on level 3

Then it should not let me open it

And notify me that I still need to complete previous lessons

When I swipe left to view the other levels

Then it should not let me open any of the lessons

### **Feature: Resource link**

As a studious student, I want to be able to click a link to other resources, so that I can understand the concepts better.

Scenario: Following a lesson

Given I am on a lesson

When I click on a resource link

Then it should open a resource page

When i click on a resource

Then it should open a browser

And redirect me to a website that will help me understand the material better

### **Feature: Short tutorial**

As a student, I want to see short tutorials (sample questions) at the end of lectures, so that I can be prepared for the challenges.

Scenario: Finishing a lesson

Given I am at the end of a lesson

When I click on 'next'

Then it should give me a short tutorial to help me prepare for the challenges

### **Feature: Answer picked highlighted**

As a student, I want to see the answer choice that I picked highlighted, so that I know I clicked the one I wanted.

Scenario: Picking one of the answer choices

Given I am on a challenge question  
When I click on an answer choice  
    Then it should become highlighted  
When I click on a different answer choice  
    Then the old one's highlight should go away  
    And the new one should become highlighted

**Feature: Submit answer**

As a student, I want to click on 'submit', so that I can finalize my answer.

Scenario: Finalize answer choice  
Given I am on a challenge question  
When I click on an answer choice  
    And click the submit button  
    Then it should either tell me if my answer is correct or wrong

**Feature: Skill Mastery**

As a student, I want to see a notification when I score 80% on a challenge, so that I know I have mastered the skill.

Scenario: Challenge completed with at least an 80% grade  
Given I am on a results page  
When I click next to go back to the homepage after scoring at least an 80% on the challenge  
    Then it should notify me that I have mastered the skill  
    And the next lesson should become unlocked

**Feature: Perfectionist Medal**

As a student, I want to earn a medal when I score 100% on all challenges, so that I can feel good about being a "perfectionist"

Scenario: All challenges completed with 100% grade  
Given I am on a results page  
When I click next to go back to the homepage after scoring 100% on all challenges  
    Then it should notify me that I was awarded with a "Perfectionist" medal  
When I click on profile  
    And I click on medals  
    Then I should see the Perfectionist medal unlocked

**Feature: Correct answer**

As a student, I want to see the answer choice turn green when it is correct after I submit my answer, so that I know I answered the question correctly.

Scenario: Highlight submitted correct answer choice green

Given I am on a challenge question  
When I submit the correct answer choice  
    Then the answer choice should become highlighted as green  
    And it should proceed to the next question  
    Or go to the results screen

**Feature: Incorrect answer**

As a student, I want to see the answer choice turn red when it is wrong after I submit my answer, so that I know it is not the correct answer.

Scenario: Highlight submitted incorrect answer choice red  
Given I am on a challenge question  
When I submit an incorrect answer choice  
    Then the answer choice should become highlighted as red

**Feature: Show answer**

As a student, I want to see the answer after a few incorrect tries, so that I know my mistake.

Scenario: Show correct answer after a few incorrect tries  
Given I am on a challenge question  
When I answer incorrectly three times  
    Then the answer should be shown to me  
    And it should go to the next question  
    Or go to the results screen

**Feature: Feedback**

As a customer, I want to leave feedback, so that I can give suggestions on improving the app.

Scenario: Leaving suggestions as feedback  
Given I am on the homepage  
When I click on the support icon  
    Then it should take me to the support page  
When I click on "feedback"  
    Then it should take me to a page

**Feature: Frequently asked questions (FAQs)**

As a customer, I want to see frequently asked questions, so that I do not have to ask the same questions again.

Scenario: Navigate to the frequently asked questions page  
Given I am on the homepage  
When I click on the support icon  
    Then it should take me to the support page

When I click on "Frequently asked questions"  
Then it should take me to the FAQs page

**Feature: Night Mode (optional)**

As a healthy person, I want to turn on night mode, so that I do not hurt my eyes from the screen.

Scenario: User is in a dark area and wants to progress in the game

Given it is right before midnight and I am laying in bed playing the game

When I get into the app

Then I should see a button to change the display to night mode so that the bright  
Display doesn't hurt my eyes at this time in the night.

**Feature: Final Exam (optional)**

As a student, I want to test in a final exam at the end of a level, so that I can test my knowledge of the material.

Scenario: User has completed the game and wants to take a final test to see improvement.

Given I have completed the pre test, every level and challenge in the game

When I get to this stage I should be asked if I want to take post test to test my knowledge

Then after taking the test i should be show the percentages for each section  
And should also be show the percentages from the pret test to see if I made any  
improvements

**Feature: Bookmarks (optional)**

User Story: As a student, I want to bookmark lessons, so that I can come back to it easily.

Scenario: Bookmark a lesson page

Given I am on a lesson page

When I click on the bookmark button

Then the bookmark button will become highlighted

When I go to the homepage

And I click on the bookmark icon

Then I should see a list of lesson pages that I bookmarked

**Feature: Link Account (optional)**

As a social media user, I would like the option to sign in through Facebook or Google so that i can sign in easily.

Scenario: Signing in

Given I am on the login screen

When i click sign in through Facebook/Google/Github

Then it should redirect me to the desired accounts login page  
And i can put my put in my login information



When i click sign in  
Then it should redirect me back to the app  
And should have successfully linked the apps

**And/or**

Scenario: Linking accounts

Given I am on the homepage

When i click profile

Then it should take me to my profile page

When i click sign in through Facebook

Then it should redirect me to the Facebook login page

And i can put my put in my login information

When i click sign in

Then it should redirect me back to the app

And should have successfully linked the accounts

When i click sign in through Google

Then it should redirect me to the Google login page

And i can put my put in my login information

When i click sign in

Then it should redirect me back to the app

And should have successfully linked the accounts

When i click sign in through Github

Then it should redirect me to the Github login page

And i can put my put in my login information

When i click sign in

Then it should redirect me back to the app

And should have successfully linked the accounts

**Feature: Sign Up**

As a user, I want to see the sign up page when I open the app for the first time, so that I can create a new account.

Scenario: Signing up for the app

Given I open the app for the first time

When I enter my email and password

Then it should create a new account for me

**Feature: Sign In**

As a user, I want to see the sign in page when I open the app again, so that I can login with my info and use the app

Scenario: Signing in

Given I open the app

When I enter my login information (email/username and password) correctly  
Then it should take me to the homepage