

Biology Learning Games and Animation

CSCE 606 Software Engineering

Team Report : Iteration 1

Team Roles:

Product Owner: Prajwal Das

Scrum Master: FNU Nimisha

Developers: Shubham Gupta, Sai Harini Voruganti, Apurva Purushotama

Customer meeting date/time/place: [Link to Minutes of Meeting: 3/18/2022](#)

We had a meeting over Zoom with Dr. Walker on 11th March, 2022 to discuss progress for iteration 0, and user stories to implement for iteration 1.

Important Links:

GitHub repo: <https://github.com/prajwaldas95/BiologyLearningGamesAndAnimations>

Pivotal Tracker: <https://www.pivotaltracker.com/n/projects/2556976>

Slack:

https://join.slack.com/t/seoproject-1oc6126/shared_invite/zt-141c9mqw1-YZvyPf_VxICrw8ThiZ63Vg

VetMed Website: <https://vetmed.tamu.edu/peer/one-health/>

SpreadSheet(Deployment Status):

https://docs.google.com/spreadsheets/d/10NGrOZEGldePJ_KSnpPO_ENLpEQdU_VA3r1yopvTpGY/edit#gid=0

Inventory Sheet: SpreadSheet:

https://docs.google.com/spreadsheets/d/10NGrOZEGldePJ_KSnpPO_ENLpEQdU_VA3r1yopvTpGY/edit#gid=0

Summary:

Deployment: We obtained the email address of Daniel Shuta's supervisor (nritter@cvm.tamu.edu) and for deployment we will contact them in further iterations. We know that the deployment on Stepstone and Peer website has dependency on Daniel and Samiksha respectively. We've gone through the previous team's documentation regarding deployment tutorials and deployment will be done in the next iteration since it has dependency on people outside the team.

Testing:

As discussed with Prof. Walker, the testing would be done manually.

There is no need for a design diagram as the biology animation games are small animations of their own.

Status:

| User Story | Status (Not started/Started/Developed/Deployed/Completed) |
|--|---|
| 1. Infectious diseases module - Knowledge Check: What are the data? | Developed |
| 2. Infectious diseases module - Knowledge Check: Which axis is the right? | Developed |
| 3. Infectious diseases module - Knowledge Check: Name that variable | Developed |
| 4. Infectious diseases module - Knowledge Check : Calculate the Value | Developed |
| 5. Testing of Sprint 1 user stories locally and on Stepstone testing environment | Completed |
| 6. Clinical Trial module - Hypothesize Knowledge Check | Not started |
| 7. Clinical Trial module - Identify the Variables | Not started |
| 8. Clinical Trial module - Prove that you are a scientific method expert! | Not started |
| 9. Clinical Trial module - Organize the Details of Clinical Trial Phases | Not started |

| | |
|---|--------------------|
| 10. Clinical Trial module - Think about it | Not started |
| 11. Clinical Trial module - Did you grasp the concepts? | Not started |
| 12. Clinical Trial module - Can you count the costs? | Not started |
| 13. Ecology module - Ecological Succession Knowledge Check | Not started |
| 14. Ecology module - Producers Knowledge Check | Not started |
| 15. Ecology module - Living or Non-Living Knowledge Check | Not started |
| 16. Stress module - Label the Neuron | Not started |
| 17. Stress module - Keep it in Balance | Not started |
| 18. Stress module - Can You Sense the Answers | Not started |
| 19. Inventory Check : Mapping existing animations which have bugs and needs to be fixed | Completed |
| 20. Inventory Check : Mapping new animations to be developed | Completed |

For this iteration 1, we picked the following user stories:

UserStory1: “ Develop Infectious diseases module - Knowledge Check: What are the data?”

UserStory2: “ Develop Infectious diseases module - Knowledge Check: Which axis is the right?”

UserStory3: “ Develop Infectious diseases module - Knowledge Check Name that variable”

UserStory4: “ Develop Infectious diseases module - Knowledge Check : Calculate the Value”

UserStory5: “ Test Infectious diseases module- newly developed slides”

Firstly, we have made an inventory of the developed animations in various modules (UserStory19, UserStory20). Then, in this iteration, we have focused on verifying the animations in Stepstone environment, and wordpress environment locally. Then, we have worked on developing new animations for the “Infectious Diseases module”. With that, all the animations for that module will be developed to work on Wordpress and Stepstone.

User Stories:

1. [Prajwal: 3 pts] Feature: Develop Infectious diseases module - Knowledge Check : Calculate the Value

As an Instructor

I want the students to use interactive animations for the Infectious diseases module - Knowledge Check : Calculate the Value slide

So that the students can understand the concepts better.

Progress: Developed

Design diagram:

Knowledge Check: Calculate the Value

For the data set below determine the mean, median, range, and mode.

[Reload this page](#)

1,5,2,6,2,4,6,9,2

- Mean
- Median
- Range
- Mode



Answers

(Drag to drop into the boxes)

4
2
8
4.1

[Submit](#)



Knowledge Check: Calculate the Value

For the data set below determine the mean, median, range, and mode.

1,5,2,6,2,4,6,9,2 You got 2 answers wrong.

Go back and read about central tendency from the analyzing data slides!

- Mean 8
- Median 4
- Range 4.1
- Mode 2



Answers

(Drag to drop into the boxes)

Submit

Explanation:

We have developed a drag and drop animation for the slide "Knowledge Check : Calculate the Value" from the Infectious diseases module. The Student has to drag the answers from the "Answers" box and place them onto the correct boxes corresponding to "Mean", "Median", "Range" and "Mode" and click on the submit button to check their answers.

Respective prompts are shown depending on the questions that the students get right.

The answers and the background photos are parametrized so that the code is easy to maintain and modify in the future. The animation has been developed such that resizing the window doesn't affect the working of the animation and it is also compatible with touch devices.

The color combinations, fonts and image sizes are chosen keeping accessibility in mind.

2. [FNU Nimisha: 3 pts] Feature: Develop Infectious diseases module - Knowledge Check : Which axis is the right?

As an Instructor

I want the students to use interactive animations for the Infectious diseases module - Knowledge Check : Which axis is the right?

So that the students can understand the concepts better.

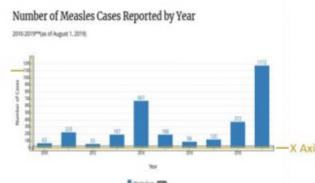
Progress: Completed

Design diagram:

Knowledge Check: Which axis is the right axis?

Which of the following answer choices correctly matches the variable to its axis on a graph? (an example graph is shown to represent each axis)

- 1
- 2



Answers

(Drag to drop into the boxes)

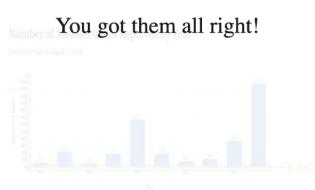
- dependent & y-axis
- dependent & x-axis
- independent & x-axis
- independent & y-axis
- None of the above



Knowledge Check: Which axis is the right axis?

Which of the following answer choices correctly matches the variable to its axis on a graph? (an example graph is shown to represent each axis)

- dependent & y-axis
- independent & x-axis



Answers

(Drag to drop into the boxes)

- dependent & x-axis
- independent & y-axis
- None of the above

Explanation:

We have developed a drag and drag animation for the slide “Knowledge Check : Which axis is the right?” from the Infectious diseases module. The Student has to drag the answers from the "Answers" box and place them onto the correct boxes for Y-axis and X-axis respectively and click on the submit button to check their answers.

Respective prompts are shown depending on the questions that the students get right.

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3. [Sai Harini Voruganti: 3 pts] Feature: Develop Infectious diseases module - Knowledge Check: What are data?

As an Instructor

I want the students to use interactive animations for the Infectious diseases module - Knowledge Check : What are data

So that the students can understand the concepts better.

Progress: Developed

Design diagram:

Knowledge Check: What are data?

Fill in the blank with the correct words to define data.

Data are a collection of 1 measurements and/or 2 for the purpose of 3 or analyzing information.

Answers

(Drag to drop into the boxes)

facts
studying
observations



Knowledge Check: What are data?

Fill in the blank with the correct words to define data.

Data are a collection of observations measurements and/or studying the purpose of facts or analyzing information.

You got 2 answers wrong.

Go back and read the data collection and organization slides!

Explanation:

We have developed a drag and drop animation for the slide “Knowledge Check : What are Data” from the Infectious diseases module. The Student has to drag the answers from the “Answers” box and place them onto the correct boxes and click on the submit button to check their answers.

Respective prompts are shown depending on the questions that the students get right.

The answers and the background photos are parametrized so that the code is easy to maintain and modify in the future. The animation has been developed such that resizing the window doesn't affect the working of the animation and it is also compatible with touch devices.

The color combinations, fonts and image sizes are chosen keeping accessibility in mind.

4. [Apurva Purushotama: 3 pts] Feature: Develop Infectious diseases module - Knowledge Check : Name that Variable

As an Instructor

I want the students to use interactive animations for the Infectious diseases module - Knowledge Check : Name that variable slide

So that the students can understand the concepts better.

Progress: Developed

Design diagram:

Knowledge Check: Name that Variable

Match the three types of variables with their correct definitions.

1. A variable that is determined by the scientist 1
2. A variable that should remain constant when designing experiments to ensure outcomes are the result of a single factor. 2
3. A variable that responds to changes made by the scientist. 3

Answers

(Drag to drop into the boxes)

Independent
Dependent
Controlled

Submit



Knowledge Check: Name that Variable

Match the three types of variables with their correct definitions.

1. A variable that is determined by the scientist Controlled

2. A variable that should remain constant when designing experiments to ensure outcomes are the result of a single factor. Independent

3. A variable that responds to changes made by the scientist. Dependent

You got 2 answers wrong.

Answers

(Drag to drop into the boxes)

Explanation:

We have developed a drag and drop animation for the slide “Knowledge Check : Name that Variable” from the Infectious diseases module: Data Collection and Organization. The Student has to drag the answers from the “Answers” box and place them onto the correct boxes to answer the questions listed on the left hand side. The student has to click on the submit button to check their answers.

Respective prompts are shown depending on the questions that the students get right.

The answers and the background photos are parametrized so that the code is easy to maintain and modify in the future. The animation has been developed such that resizing the window doesn't affect the working of the animation and it is also compatible with touch devices.

The color combinations, fonts and image sizes are chosen keeping accessibility in mind.

5. [Shubham Gupta: 3 pts] Testing: Testing of Sprint 1 user stories locally and on Stepstone testing environment

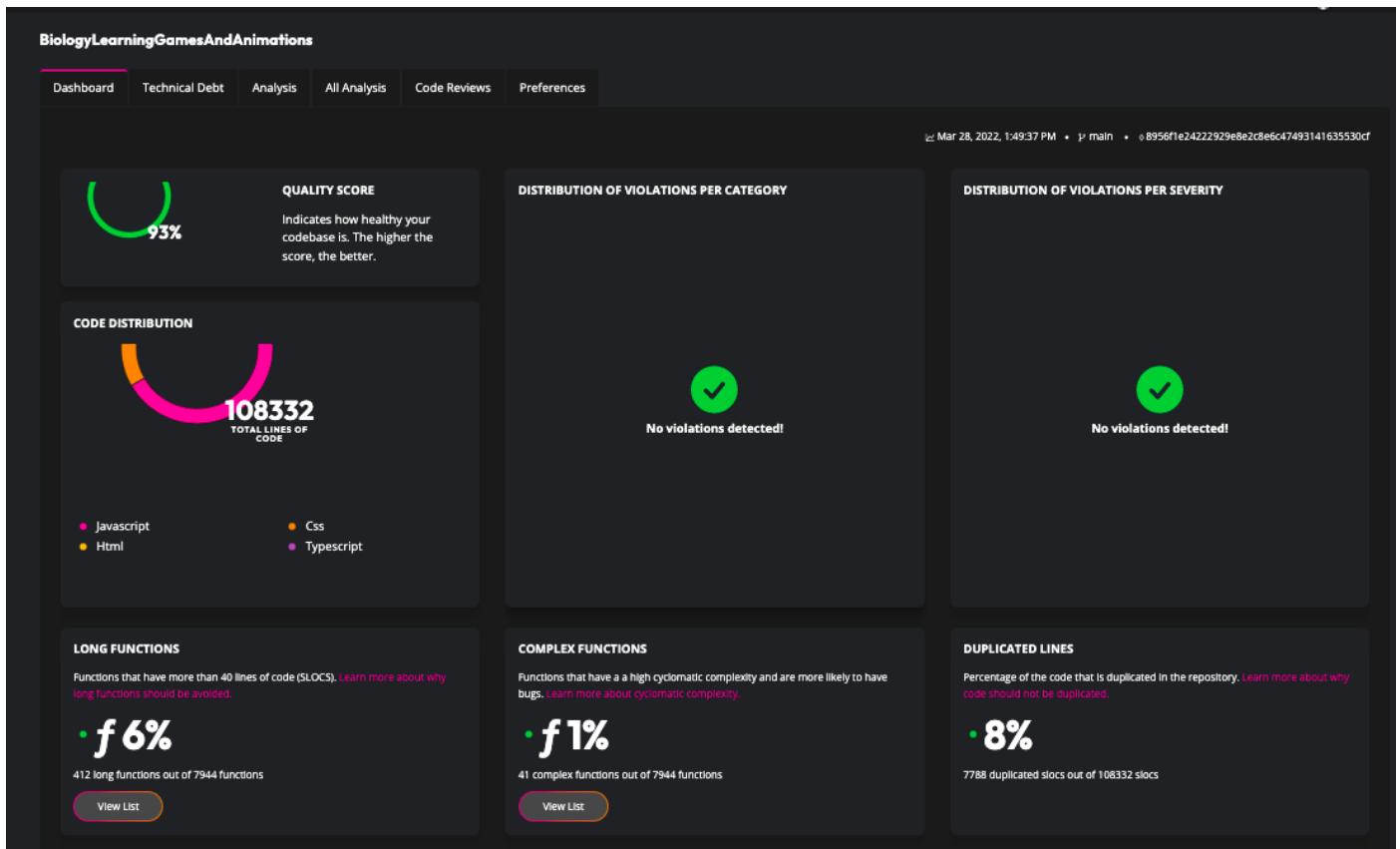
As an Instructor

I want the students interaction without any bugs

So that the students can have a smooth user experience.

Progress: Completed

Code Quality Report:



The detailed report is also available [here](#)

Tutorials:

Setting up wordpress locally:

Manual Installation of DesktopServer on Windows

1. First, download the installation package for your platform from [here](#)
2. Unzip the .zip file and locate the “libs” sub-folder containing the xampplite folder.
3. Drag the xampplite folder to your c:\ hard drive.
4. Open the Windows command prompt by pressing the Windows button on your keyboard or clicking the “Start” button and typing “Command Prompt”, followed by pressing the enter key.

Type the following (on one line) in the Command Prompt window, followed by pressing the enter key:

```
cd /D c:\xampplite\ds-plugins&..\all\bin\unzip ds-cli-win.zip
```

Type the next command, followed by pressing the enter key:

```
cd /D c:\xampplite\mysql&..\all\bin\unzip backup.zip
```

You may now close the Windows Command Prompt window or type “exit”.

5. Double-click the DesktopServer program icon from within your c:\xampplite

Steps for Manual Installation of DesktopServer on a Mac

1. First, download the installation package for your platform from [here](#)
2. Unzip the .zip file and locate the “libs” sub-folder containing the XAMPP folder.
3. Drag the XAMPP folder to your Applications folder.
4. Double click the /Applications/XAMPP/ds-plugins/ds-cli-mac.zip to unpack the ds-cli plugin. You may delete the ds-cli-mac.zip file.
5. Double click the /Applications/XAMPP/xamppfiles/var/backup.zip to unpack the mysql folder.
6. Right-click the DesktopServer application icon from within your /Applications/XAMPP folder and select “Open” from the pop-up context menu.

Open Desktopserver and select the option ‘Create a new development website’.



Then you will see the below window where you have give the site name and the local address where you want to save the site root.



Click on create to start the web server. To test any module, place your files/folder in the root directory and open the site in the browser.

For example: <http://www.example.dev.cc/slides8/index.html>

File location- C:\Users\prajw\OneDrive\Sites\www.example.dev.cc\Slide4\index.html