



MATES Computer Science

## Senior Capstone Project Bi-Weekly Progress Report

Project Title	Athena
Team Members	Me
Dates Covered by Report	2/26-3/7
Link to Github	<a href="https://github.com/AlexBH74/Athena">https://github.com/AlexBH74/Athena</a>

1. **Summary of Project** (Provide a one paragraph summary of your project. You can largely copy/paste this from one progress report to the next, unless there are significant changes.)

My plan is to create an Apple game for daily trivia. The app will draw from a MySQL database of very tough trivia questions and answers. When the app opens there will be slides that list the game's summary and general instructions. After clicking next past all of that the user will have to create a login so that progress for every user can be tracked. Once you login the screen will change and the player can press the start button on the screen to begin playing. A timer will then start and the screen will display the question with a text box to type the answer. The timer can be paused but the trivia question is blocked from view if the game is stopped. The user will have 3 strikes before they have to answer correctly. At the end whether or not you answered correctly and your time will be displayed in a pop-up. There will be a separate tab on the app containing a table of each user's career stats, line graphs/trend lines and bar plots showing progress over time.

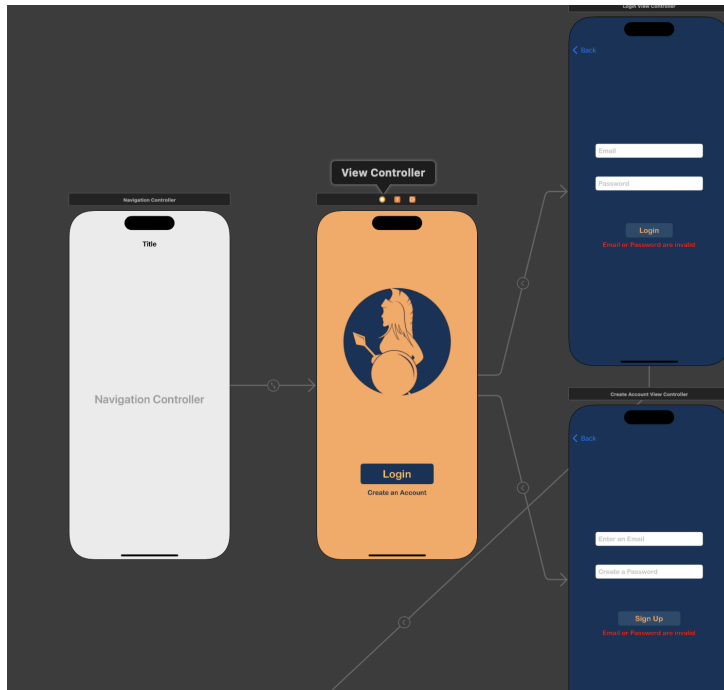
2. **Summary of Progress this Period** (Provide a high-level, one paragraph overview of what was accomplished this progress period collectively by the team.)

Over the last two weeks I made a lot more progress than I originally expected. It only took me three days to get the login function up and running with firebase as my backend database. I then moved on to creating a database of brainteasers. Here's where I ran into a problem. I would either have to take weeks upon weeks to compile challenging brain teasers that I am still able to

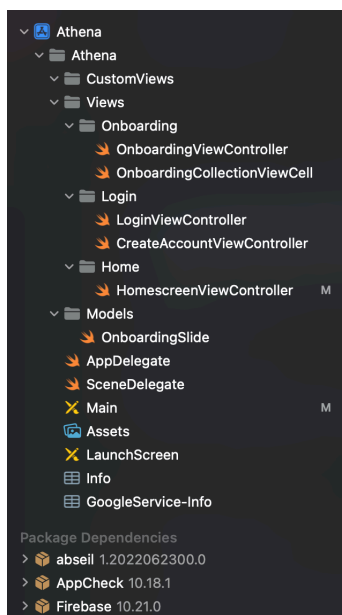
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code for, or I would have to use a premade csv of very easy brain teasers. At this junction I decided to switch up my idea and go for trivia instead. I found a trivia csv and after a week of struggles with downloading and running MySQL I finally got the CSV to upload to a MySQL database correctly.

**Detailed Progress this Period, separated by Team Member** (Provide detailed information on the progress that you made in the reporting weeks. Include screenshots of code, your game or website, etc. Each team member should have a separate subsection covering their accomplishments. Not including screenshots, this section should be 1-2 pages.)



To the left is my main login interface attached to my login and create account screens



To the left is the collection of groups and code files within my project so far

To the right is the onboarding screen where the slideshow design is located. I edited the colors and sizing of everything



```
8 import UIKit
9 import Firebase
10
11 class LoginViewController: UIViewController {
12
13     @IBOutlet weak var usernameTextField: UITextField!
14     @IBOutlet weak var passwordTextField: UITextField!
15     @IBOutlet weak var invalidText: UILabel!
16
17     override func viewDidLoad() {
18         super.viewDidLoad()
19         self.invalidText.isHidden = true
20         // Do any additional setup after loading the view.
21     }
22
23     @IBAction func loginClicked(_ sender: Any) {
24         guard let email = usernameTextField.text else { return }
25         guard let password = passwordTextField.text else { return }
26
27         Auth.auth().signIn(withEmail: email, password: password) { firebaseResult, error in
28             if let e = error {
29                 self.invalidText.isHidden = false
30             }
31             else {
32                 self.performSegue(withIdentifier: "goToNext", sender: self)
33             }
34         }
35     }
36 }
37
38 import UIKit
39 import Firebase
40
41 class CreateAccountViewController: UIViewController {
42
43     @IBOutlet weak var usernameTextField: UITextField!
44     @IBOutlet weak var passwordTextField: UITextField!
45     @IBOutlet weak var invalidText: UILabel!
46
47     override func viewDidLoad() {
48         super.viewDidLoad()
49         self.invalidText.isHidden = true
50         // Do any additional setup after loading the view.
51     }
52
53     @IBAction func signupClicked(_ sender: Any) {
54         guard let email = usernameTextField.text else { return }
55         guard let password = passwordTextField.text else { return }
56
57         Auth.auth().createUser(withEmail: email, password: password) { firebaseResult, error in
58             if let e = error {
59                 self.invalidText.isHidden = false
60             }
61             else {
62                 self.performSegue(withIdentifier: "goToNext", sender: self)
63             }
64         }
65     }
66 }
```

The two view controllers above display the functions used within both the login and create account view controllers. They are the same code with the only difference being where they are connected to on the main storyboard.

**I attached a screen recording to the classroom showing the entire code output.**

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data	Mar 1, 2024, 12:45 PM	--	Folder
arts_and_literature.json	Feb 28, 2024, 6:12 PM	107 KB	JSON Document
entertainment.json	Feb 28, 2024, 12:06 PM	156 KB	JSON Document
geography.json	Feb 28, 2024, 12:07 PM	388 KB	JSON Document
history.json	Feb 28, 2024, 12:07 PM	416 KB	JSON Document
language.json	Feb 28, 2024, 12:08 PM	12 KB	JSON Document
mathematics.json	Feb 28, 2024, 12:08 PM	9 KB	JSON Document
music.json	Feb 28, 2024, 12:08 PM	637 KB	JSON Document
people_and_places.json	Feb 28, 2024, 12:08 PM	65 KB	JSON Document
religion_and_mythology.json	Feb 28, 2024, 12:08 PM	38 KB	JSON Document
science_and_nature.json	Feb 28, 2024, 12:08 PM	496 KB	JSON Document
sport_and_leisure.json	Feb 28, 2024, 12:08 PM	264 KB	JSON Document
tech_and_video_games.json	Feb 28, 2024, 12:08 PM	30 KB	JSON Document
toys_and_games.json	Feb 28, 2024, 12:08 PM	23 KB	JSON Document
trivia_data_combined.csv	Mar 1, 2024, 12:44 PM	1.3 MB	CSV Document

Data file containing separate json files of each trivia category questions, and a csv with 13,342 lines of all the questions and answers combined.

```

1  -- Create a new database called trivia
2  • create database trivia;
3
4  -- Create a table called questions in the trivia database with three columns of text
5  • create table trivia.questions(
6      category_id varchar(3000),
7      answers varchar(3000),
8      question varchar(3000)
9  );
10
11 -- Disable strict mode in MySQL session to allow for only warnings where certain errors occur
12 SET @@SESSION.sql_mode = REPLACE(@@SESSION.sql_mode, 'STRICT_TRANS_TABLES', '');
13
14 -- Load data from a CSV file located at 'C:/ProgramData/MySQL/MySQL Server 8.0/Data/trivia_data.csv' into the trivia.questions table
15 • LOAD DATA INFILE 'C:/ProgramData/MySQL/MySQL Server 8.0/Data/trivia_data.csv'
16 INTO TABLE trivia.questions
17 FIELDS TERMINATED BY "," -- The data in the CSV file is separated by commas
18 IGNORE 1 ROWS; -- The first row is ignored as it contains column headers

```

category_id	answers	question
ART_AND_LITERATURE	Harry Potter And The Philosophers Stone	Which famous book contains the line Mr & Mrs D...
ART_AND_LITERATURE	Pastel	"A soft, subdued color; a drawing stick made of ...
ART_AND_LITERATURE	Gainsborough	Who painted The Blue Boy?
ART_AND_LITERATURE	John Le Carre	Which author wrote The Spy That Came In Fro...
ART_AND_LITERATURE	John Grisham	Who penned the novel The Pelican Brief that w...
ART_AND_LITERATURE	Earnshaw	What is the surname of Cathy in Wuthering Hei...
ART_AND_LITERATURE	James Joyce	"He wrote Ulysses, Giacomo Joyce, Dubliners a...
ART_AND_LITERATURE	Romeo and Juliet	What shakespearean play features the line: A p...
ART_AND_LITERATURE	Monotype	"A single print made from a metal or glass plate ...
ART_AND_LITERATURE	Satan	Who is the protagonist of Miltons Paradise Lost?
ART_AND_LITERATURE	The Saint	Who did author Leslie Charteris create?
ART_AND_LITERATURE	Baker	Sherlock Holmes lived at 221b ____ street?
ART_AND_LITERATURE	Aquatint	"An etching technique in which a solution of asph...
ART_AND_LITERATURE	Surrealism	With what art movement was Salvador Dali ass...
ART_AND_LITERATURE	Peter Rabbit	"What story features flopsy, mopsy and cotton...
ART_AND_LITERATURE	Doc Savage	This magazine chronicled the Man of Bronze and...
ART_AND_LITERATURE	F. Scott Fitzgerald	Who wrote The Great Gatsby?
ART_AND_LITERATURE	New York	Where might you find the Museum of modern art?

Above is the code and output for my MySQL database containing all 13,342 rows in the csv. I plan to filter and cut this down to under 5000 rows though (to make the data easier and cleaner to work with) and then reimport

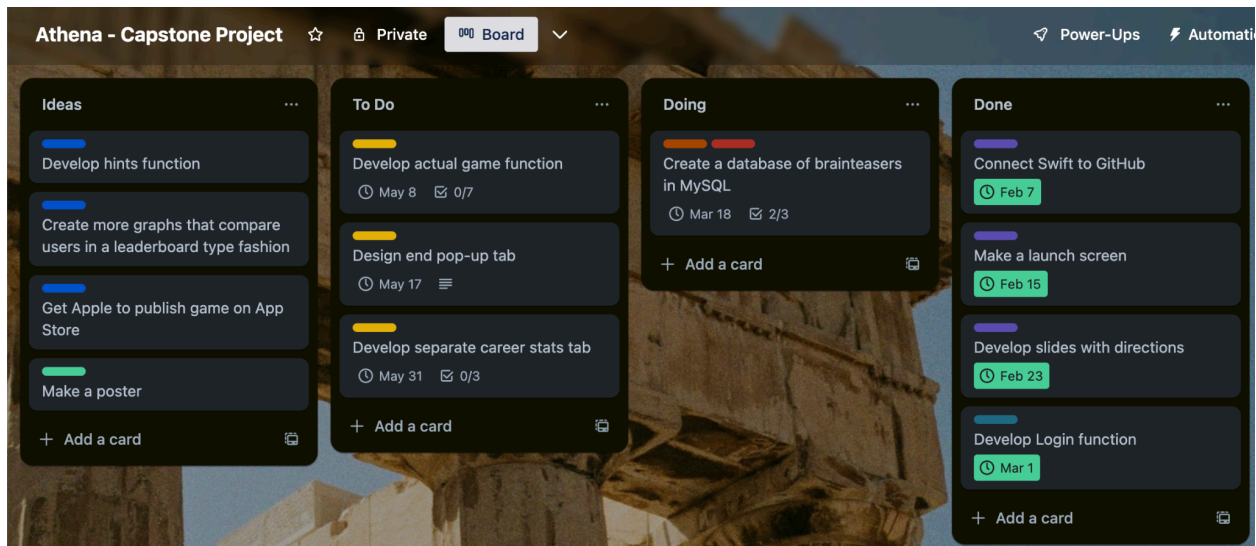
3. **Difficulties Encountered this Progress Period** (Provide detailed information on the difficulties and issues that you encountered in the reporting weeks. Discuss mitigation strategies for how you got around or plan to get around these issues.)

Over the last two weeks I have run into several difficulties, but the main two involved MySQL. I tried for six days, including the weekend, to download and run MySQL on my macbook, but the download files didn't contain everything I needed for the server. As a result I was getting super frustrated and reluctantly I chose to do the MySQL portion on my windows laptop.

After switching, download and setup went a million times smoother, but the next obstacle was getting the data to import correctly. The MySQL data wizard reacted strangely and would only import about a quarter of the rows before shutting down. Because of this I had to use the "LOAD DATA INFILE" function which provided its own set of issues with truncation and privacy. Eventually though, after fixing my privacy settings and making truncation just spit out a warning and no error, I was able to import my csv.

The last issue I am faced with is comma separation. When I loaded the data file some of the questions and answers had commas within them, so they were split up by default. I now just have to clean up the data frame and make sure every comma is preceded by a backslash in order to import properly.

4. **Updated Trello Board and Discussion** (Provide screenshot of and link to updated Trello board. Discuss any changes made to board since last progress report and why.)



<https://trello.com/b/ldYqXQeq/athena-capstone-project>

5. **Tasks to Be Worked on in Next Progress Period** (Discuss the tasks to be worked on in the following two weeks. Discuss who is working on each.)

I will continue to work on completing my database, and hopefully I will be able to start designing the homescreen of the game.

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6. **Additional Information** (Provide any additional information that you want to provide in this section; for example, one of your teammates is going away next week, your Github account is gone, etc. It could be good news as well.)