



MATES Computer Science

Senior Capstone Project Bi-Weekly Progress Report

Project Title	Athena
Team Members	Me
Dates Covered by Report	3/11-3/21
Link to Github	https://github.com/AlexBH74/Athena

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 trivia questions and multiple choice 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 log in the screen will change and there will be an interface with easy, medium, and hard modes. The player can choose their mode and will be sent to a screen with the six different categories. Each player will be able to play one question from each category each day. Once the user presses the category of the question they want, a timer will then start and the screen will display the question with four multiple choice answers. The timer can be paused but the trivia question is blocked from view if the game is stopped. At the end whether or not you answered correctly and your time will be displayed in a pop-up. A button will be on the pop-up that sends you back to the screen with the categories. Each user can play all three modes for all six categories for a total of 18 multiple choice trivia questions a day. 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.)

Unlike the previous two weeks, I made a lot less progress than I originally expected in sprint #3. After finally confirming that I can properly upload a csv to MySQL, I got to work cleaning up my data. Through the help of Python, I was able to draw questions from an online database and create a dataframe, which I converted to a csv of just over 1000 questions. By using Google Sheets formulas I was able to add backslashes before commas and fix some of the common errors in the data, but I was not able to filter out everything. I then had to manually go through every question and answer to make sure everything was capitalized right and all punctuation was correct. This took over a week which was what most of my time went. After cleaning out the csv I finally uploaded it with no errors to MySQL on Wednesday 3/20. I then spent Thursday researching and trying to connect the MySQL database to Xcode, which I am currently in the process of doing.

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.)

```

1  -- Create a new database called trivia
2  • create database trivia_mc;
3
4  -- Create a table called questions in the trivia database with three columns of text
5  • create table trivia_mc.questions(
6      category varchar(100),
7      difficulty varchar(20),
8      question varchar(3000),
9      correctAnswer varchar(1000),
10     incorrect1 varchar(1000),
11     incorrect2 varchar(1000),
12     incorrect3 varchar(1000)
13 );
14
15 -- Disable strict mode in MySQL session to allow for only warnings where certain errors occur
16 • SET @@SESSION.sql_mode = REPLACE(@@SESSION.sql_mode, 'STRICT_TRANS_TABLES', '');
17
18 -- Load data from a CSV file located at 'C:/ProgramData/MySQL/MySQL Server 8.0/Data/trivia_mc.csv' into the trivia.questions table
19 • LOAD DATA INFILE 'C:/ProgramData/MySQL/MySQL Server 8.0/Data/trivia_mc.csv'
20 INTO TABLE trivia_mc.questions
21 FIELDS TERMINATED BY "," -- The data in the CSV file is separated by commas
22 IGNORE 1 ROWS; -- The first row is ignored as it contains column headers

```

	category	difficulty	question	correctAnswer	incorrect1	incorrect2	incorrect3
▶	The Arts	Easy	"In Edward Lear's poem, which bird sang to the ...	The Owl	The Robin	The Swan	The Albatross
	The Arts	Easy	Which author wrote 'Harry Potter and the Philos...	J. K. Rowling	Christopher Tolkien	Philip Pullman	C. S. Lewis
	The Arts	Easy	In which book series does Frodo Baggins appear?	The Lord of the Rings	Harry Potter	Red Rising	The Hunger Games
	The Arts	Easy	Which author wrote 'The History of Middle-Earth'?	J. R. R. Tolkien	G. K. Chesterton	Philip Pullman	C. S. Lewis
	The Arts	Easy	Who is the American artist who uses Campbell's ...	Andy Warhol	Jackson Pollock	Gertrude Stein	Aaron Copland
	The Arts	Easy	In which book is Bilbo Baggins the main character?	The Hobbit	Charlotte's Web	Alice's Adventures in Wonderland	Bluebeard
	The Arts	Easy	"In E.B. White's classic children's book 'Charlotte'...	A Spider	A Pig	A Sheep	A Horse
	The Arts	Easy	Which author wrote 'The Hobbit'?	J. R. R. Tolkien	G. K. Chesterton	Philip Pullman	C. S. Lewis
	The Arts	Easy	Which author wrote 'A Midsummer Night's Dream'?	William Shakespeare	Arthur C. Clarke	Isaac Newton	Enid Blyton
	The Arts	Easy	Which author wrote 'Harry Potter and the Deat...	J. K. Rowling	Christopher Tolkien	Philip Pullman	C. S. Lewis
	The Arts	Easy	"Which piece of written work starts with the line...	Lolita	Les Liaisons dange...	And Then There Were None	Ulysses
	The Arts	Easy	Which author wrote 'The Origin of Species'?	Charles Darwin	Percy Bysshe Shelley	H. Rider Haggard	Robert Louis Stev...
	The Arts	Easy	What is the word for a composition made of cut ...	Collage	Watercolor	Sculpture	Pointilism
	The Arts	Easy	Who wrote 'A Christmas Carol'?	Charles Dickens	Thomas Hardy	James Joyce	Emily Brontë
	The Arts	Easy	Which piece of written work starts with the line '...	The Hobbit	Charlotte's Web	Alice's Adventures in Wonderland	Bluebeard
	The Arts	Easy	In which book series does Prince Caspian appear?	The Chronicles of Na...	Voyages Extraord...	Harry Potter	Percy Jackson & t...
	The Arts	Easy	In which book series does Thalia Grace appear?	Percy Jackson & the ...	Twilight	Voyages Extraordinaires	Harry Potter
	The Arts	Easy	"Who said 'But, soft! what light through yonder ...	Romeo	Juliet	Hamlet	Paris
	The Arts	Easy	What word describes a painting executed in a si...	Monochrome	Magenta	Unicolor	Solohue
	The Arts	Easy	In which book series does Lord Voldemort appear?	Harry Potter	The Lord of the Ri...	The Inheritance Series	The Hunger Games
	The Arts	Easy	What is the word given to a flat board used by ...	A palette	An eisel	A square	A pitcher

Above is the code and output for my MySQL database containing all 1036 rows in the csv.

```
url1 = "https://the-trivia-api.com/v2/questions?categories=science&difficulties=easy&limit=50"
response = requests.get(url1)
if response.status_code == 200:
    easy_science = response.json()
else:
    print("Failed to retrieve questions. Status code:", response.status_code)

url2 = "https://the-trivia-api.com/v2/questions?categories=science&difficulties=medium&limit=50"
response = requests.get(url2)
if response.status_code == 200:
    med_science = response.json()
else:
    print("Failed to retrieve questions. Status code:", response.status_code)

url3 = "https://the-trivia-api.com/v2/questions?categories=science&difficulties=hard&limit=50"
response = requests.get(url3)
if response.status_code == 200:
    hard_science = response.json()
else:
    print("Failed to retrieve questions. Status code:", response.status_code)

science = easy_science + med_science + hard_science
```

Above is the python code used to draw the questions and answers from the online database (This is only for one category).

```
list1 = arts + generalKnowledge + geography + history + science + sports
df = pd.DataFrame(list1)
df = df.drop(columns = ['id', 'type', 'regions', 'isNiche'])
df

df.to_csv('trivia.csv', index=False)
```

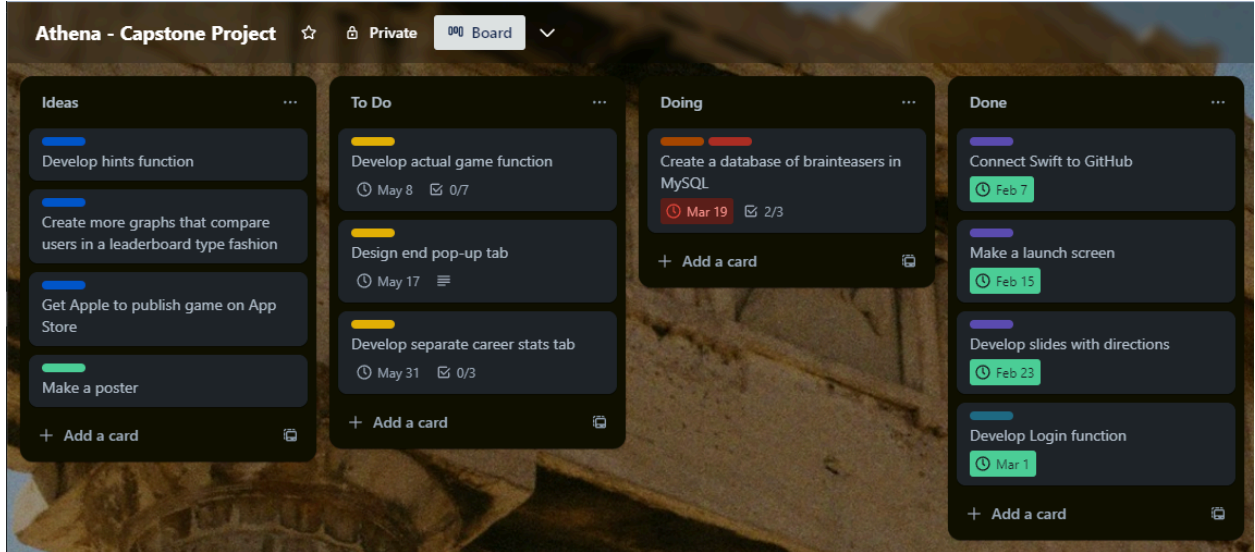
Above is the python code that condensed the lists for each category into a single list that was converted to a dataframe, and then into a csv.

Sorry for not doing this last time, but I attached the screen recording I took for the last submission to the classroom showing the entire swift code output.

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 the only big issue I ran into was finding a new set of data. The original dataset I had chosen had way too many issues with formatting, and there were way too many questions to go through manually (1000 was already plenty). I also wanted to make it easier on the user, so I went for multiple choice instead of a written answer. Finding the new dataset was the easy part. Learning to draw from it, convert it, and then having to manually filter it were not as simple.

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 connect my database to my Xcode project and then start designing my home screen buttons.

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.)