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WEEKLY Log #1

From: 09/04 To: 09/10

Today’s Date: September 10, 2023

Name of Agency: University of New Hampshire

Number of Hours Worked this week: 12 hours

Cumulative Hours to Date: 12 hours

Individual’s Weekly Log

I. Accomplished tasks this week:

1. Get to know and get used to Azure.

- As a blank paper, I have not used Azure during my academic time in spite of I have heard about it. This week I have started to learn Azure, using my student account to register. Because Azure was powered by Microsoft, therefore I got a free account from it, and of course I cannot use all of their features, but it is still enough for a beginner like me. I started to go through the learning path, which is available for beginners from Azure so that I can define and visualize what Azure is. As I have researched, Azure provides so many services, one of the top cloud computing platforms such as: Azure Kubernetes Service (simplifying the development, management and operations. Azure DevOps, this term is very popular, this is a service for teams to share code, track work and ship software. Azure Cosmos DB, to distribute globally and provide multi-model database. One of the services that I am concerned about the most is Azure Web Apps, because I will be using this service for my whole project, and I need to research it carefully. This first part is important because it is a foundation for my project.

2. Set up Azure’s environment.

- This is one of the time-consuming tasks this week for me. Creating a web app service required a knowledge of its components as well as the goal/purpose of it. For this part I have referred to a document to set it up properly and realized the database server provides two kinds of different servers, which is flexible server and single server: I Initially created a flexible server without know they have two differences. Besides that, some database engines that Azure support I’ve known after researching are SQL Azure, PostgreSQL, MySQL and Cosmos DB API for Mongo DB. Going all along with the reference, I have successfully created my first web app on Azure. This set up part is critical to ensure the project goes smoothly and avoids future errors, also get prepared for the next step.

3. Deploying test on Azure.

- This part is used to ensure the set-up part was properly and everything is on the same spot. I have taken advantage of one of my old simple projects, which does not require a database to deploy a deploy test. At first, I have encountered some errors when deploy my Django’s project on Azure. The deployment failed due to some failed building packages. After spending hours finding errors, I couldn’t fix the errors until I remembered when we were using Heroku for the could years ago (when it’s still free) on deploying, we used Python 3.8 in the runtime. I took a look back at my Azure’s web app environment set up, I realized it used Python 3.11 Runtime stack and I tried to change it to Python 3.8. The result is I successfully deploy my simple project on the Azure platform <https://django-test1.azurewebsites.net>. This part is also important for the project because when I deploy my real project with database, I can use the same component options and have experience on the error that happened in spite it did not state the error due to Python version. If I did not remember it happened on Heroku before, I may have given up and may have failed to deploy this first step.

II. Tasks in process this week.

1. Push process onto GitHub

- To maintain and organize my works, I chose GitHub to put everything on, also sharable with my lecturer.

2. Research bugs/errors encountering.

- There were still a few errors that I need to research and have a mist about it such as the conflict between Django’s database and Azure’ database.

III. Tasks to be started next week.

1. Research more into Azure’s services

- Especially its database servers, a single database and a flexible database, their options are also different.

2. Fix and debugs errors from last week.

- Solve this problem will help me to determine Django and Azure’s database behavior, from it, I can give a proper direction to handle.

VI. References used for this week.

<https://learn.microsoft.com/en-us/azure/app-service/tutorial-python-postgresql-app?tabs=flask%2Cwindows>

<https://learn.microsoft.com/en-us/azure/postgresql/single-server/concepts-ssl-connection-security>

<https://docs.djangoproject.com/en/4.0/ref/settings/#std-setting-DATABASE-ENGINE>

<https://learn.microsoft.com/en-us/azure/azure-functions/functions-how-to-use-azure-function-app-settings?tabs=portal#settings>

<https://learn.microsoft.com/en-us/azure/azure-sql/database/migrate-sqlite-db-to-azure-sql-serverless-offline-tutorial?view=azuresql>

<https://www.youtube.com/watch?v=D6Wyk9q2JM0>

<https://www.youtube.com/watch?v=Z4gLolNTM5I>

<https://learn.microsoft.com/en-us/answers/questions/1143478/az-login-fails-with-certificate-issue>

<https://stackoverflow.com/questions/72000572/how-to-change-python-version-of-azure-function>