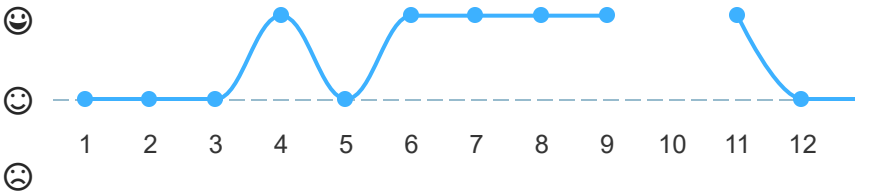
FEED Pulse

My feedback | Group feedback | Peer feedback

Jiang, Tony T.N.P.



Checkpoint 15 feedback meeting with ema 17-01-2025

Jiang, Tony T.N.P. 3 days ago

This week, I presented my work to Ema. I showcased the integration and end-to-end tests I implemented, explaining how they work and demonstrating their integration into my CI/CD pipeline to Ema.

For the integration tests, I demonstrated how it works and that it's included in the pipeline.
For the end-to-end tests, I explained how it works, including both the happy flow and the bad flow, and showed how these tests are also part of the pipeline.

Next Steps
My next step is to enhance the pipeline by adding automated deployment. When I push changes to the repository, the pipeline will execute all the existing tasks and then automatically deploy the project to the cloud.

Reflection
I realized that end-to-end tests don’t require a frontend to validate functionality. The frontend is mainly for visualization. Instead, you can test the API endpoints directly by validating the responses and ensuring that it's the expected result.

Next Step
-Implement automated deployment in the CI/CD pipeline.

Write a summary of what you discussed with your teacher...

Post feedback

Checkpoint 14 individual bp 09-01-2025

Jiang, Tony T.N.P. 11 days ago

I presented my work to Bartosz two days after I spoke with him. I gave him a refresher on the services I currently have: user service, auth service, song service, and song suggestion service. I showed that my song service is sending data to the song suggestion service, and both services are storing the data in MongoDB cloud.

The new features I showed Bartosz include the implementation of monitoring using Prometheus and Grafana to create graphs. I demonstrated the requests I'm monitoring, CPU usage, and other metrics.

Next steps:
-Implement integration tests in the CI/CD pipeline
-Implement end-to-end tests in the CI/CD pipeline
-Implement automated deployment in the CI/CD pipeline

Jiang, Tony T.N.P. 10 days ago

I also show what I showed to Bartosz to Ema at 12:50

Checkpoint 13 bp and e 06-01-2025

Jiang, Tony T.N.P. 13 days ago

I showed what I did over the vacation to Bartosz and Ema. I demonstrated that I connected to MongoDB Cloud for my song-service, where it manages songs, and my song-suggestion-service, where it receives song events to create, update, and delete songs from the song service. Additionally, it retrieves the top 5 artists based on what the user types in the search to submit an answer for the guess.

I explained that both of my services are connected to RabbitMQ. When a song is created, it sends an event to create the song in the song-suggestion service. I also mentioned that I deployed both services to k3d, simulating the production environment.

Currently, I am performing a load test using k6 on the k3d to simulate the production level and evaluate how my service scales based on the number of requests it receives. It's working, but I need to fix a few issues.

Next steps:
-Implement integration tests in the CI/CD pipeline
-Implement end-to-end tests in the CI/CD pipeline
-Implement monitoring
-Implement deployment in the CI/CD pipeline

Checkpoint 12 individual bp 19-12-2024

Jiang, Tony T.N.P. a month ago

I presented my work to Bartosz, detailing the progress I made two days after receiving feedback.

I demonstrated that I integrated a third-party service, Auth0, to handle authentication and authorization, eliminating the need to create and configure an authentication service manually. I showed that the implementation is functional and currently sends newly created users from the registration process to the user service database through a REST API. In the future, this process will be transitioned to use a message queue.

Reflection:
Although Auth0 also manages user data, I decided to use a separate user service to allow for flexibility. For instance, if I want to add more attributes to users in the future, this separation will make it easier to extend the functionality.

I deviated slightly from focusing solely on cloud-native learning outcomes because I wanted to address other aspects of my learning comes. I also took this approach based on feedback I received from Bartosz 2–3 months ago, where he suggested working on multiple learning outcomes in parallel.

One inefficiency I encountered during implementation was not reading the documentation before starting. This significantly increased the time required to complete tasks. For example, when integrating Auth0 to create users in the user service, skipping the documentation led to a full day of trial and error, which coud have been done in like2 or 3 hours. Moving forward, I will prioritize reading documentation before starting new tasks to save time.

Next Steps:
-Implement integration tests.
-Implement end-to-end tests.
-Implement monitoring.
-Implement deployment.

Checkpoint 11 bp and e 16-12-2024

Jiang, Tony T.N.P. a month ago

I presented my work to Ema and Bartosz on what I did last week.

I showed them that my user service is deployed on the cloud using AWS EKS and demonstrated that it's working. Additionally, I showed them that I'm currently working on integrating Auth0.

The next step is to deploy the service from the CI/CD pipeline. For the song service, I need to finish creating the cloud functions for the song functionality, deploy them to the CI/CD pipeline, and add a deployment task.

I encountered an issue with permissions when creating the Lambda function (AWS cloud function) based on user roles. After investigating it with Barthosz and Ema, I learned that permissions are handled by roles. I tested this by adding the permission to the group instead of the user, and it worked—the role-based user can now create the Lambda function. Now, I need to dive deeper to understand how role-based permissions work.

Next steps:
-Implement Auth0
-Implement integration tests
-Implement end-to-end tests
-Implement monitoring
-Implement deployment

Checkpoint 10 individual - Ema 05-12-2024

Jiang, Tony T.N.P. a month ago

I presented my work to Ema this week regarding the progress on my individual project.

I showed her that I implemented the user rights I outlined in my GDPR compliance document using Postman, from retrieving user information to editing and deleting user data. I also demonstrated that I deployed one of my functions, the CreateSong function, to AWS Lambda. I walked her through the process of creating the function, the challenges I encountered during its development, and how it works. Additionally, I showed her that the password is hashed and salted using bcrypt.

We reviewed what was still missing for Cloud Native, and the main point I need to address is explaining why I chose AWS, why I use cloud functions in my project, and the cost comparison. If I include these explanations, I should be able to achieve a proficient rating for Cloud Native. However, Ema still needs to discuss this with Bartosz to determine if it meets the proficiency criteria.

Next steps:
-Create a document explaining the reasons for using cloud functions
-Implement OAuth
-Integrate OAuth with the user service
-Implement integration testing and end-to-end testing in the CI/CD pipeline

Checkpoint 9 individual bp 02-12-2024

Jiang, Tony T.N.P. 2 months ago

I presented my work to Bartosz for my individual project.

Last week, I didn't have much time to work on it because I was focused on the group project, specifically working on the frontend with Angular for the first time.

I showed that my user service is connected to Supabase, a PostgreSQL cloud database. I also demonstrated that my passwords are hashed and salted using bcrypt. Additionally, I mentioned that I have an AWS account and plan to start working with cloud functions.

I outlined what I intend to complete before the final delivery this week:
-Implement cloud functions
-Implement OAuth
-Integrate OAuth with the user service

Checkpoint 8 bp indivodual 21-11-2024

Jiang, Tony T.N.P. 2 months ago

I presented my work from the past few weeks to Bartosz for my individual project.

First, I showed him my updated CI/CD pipeline design and explained why I set the tasks to run in parallel—this approach executes tasks faster. I also demonstrated the CI/CD implementation in my song-service repository, and he said it looked good.

Next, I presented my GDPR document, and he agreed that the data adheres to my project requirements. I explained how I plan to apply these GDPR principles in my project. He then asked what measures I would take to ensure user data security. I responded that I plan to implement OAuth for authentication and authorization, as well as password hashing and salting. When he inquired about HTTPS, I mentioned that for now, I am focusing on using REST APIs for this portfolio delivery, with plans to add a message queue later.

Bartosz also asked if I had implemented a database. I explained that for the group project, I implemented a text file database, while for my individual project, I connected my user service with Supabase, a PostgreSQL-based cloud service. He mentioned that for testing, he would like to see end-to-end testing and integration tests. I also outlined my next steps.

Next steps:

Implement OAuth.
Implement password hashing and salting.
Integrate OAuth with the user service.
Implement initial cloud functions.

Jiang, Tony T.N.P. 2 months ago

I also had a short meeting with Ema to talked about what I showed to Bartosz. Mostly she asked about how the jobs in the CI/CD works parallel and what I'm still missing for my learning outcomes. I also told her my next steps which is stated in the above feedback.

Checkpoint 7 individual bp 31-10-2024

Jiang, Tony T.N.P. 3 months ago

I showed and explained to Bartosz what I did during my vacation for my project.

I showed that my song service is containerized with Docker and pushed to Docker Hub, allowing CRUD operations when running the song service in Docker.

I presented the research I conducted for the initial version of my CI/CD pipeline and explained how it would work for my application in Golang.

I also mentioned that I created an OWASP Top 10 report to validate my application's security in each sprint. Additionally, I discussed that I'm currently looking into cloud functions, exploring how they work and which services to use for Golang.

Bartosz liked my progress so far. However, I feel that I need to implement more features; currently, I have only the song service implemented, and I still need to work on the CI/CD pipeline.

Next steps:
-Implement the initial CI/CD pipeline.
-Implement the database.
-Implement initial cloud functions.

Jiang, Tony T.N.P. 3 months ago

I also had a meeting with Ema, where I updated her on what I did during the three weeks she was absent. I showed and discussed the same things I presented to Bartosz, including my microservice architecture and database decisions

Checkpoint 6 bp 17-10-2024

Jiang, Tony T.N.P. 3 months ago

I showed my microservice architecture to Bartosz and explained that I'm researching which database to use for each microservice based on the use case.

I also presented my updated microservice architecture and explained the design decisions I made. For example, my user service has a message broker to the other services to comply with GDPR guidelines, which grant users the right to delete their data. The message broker would send a message to the relevant service to delete the user's data.

Bartosz said the microservice architecture looks good, and he liked the explanations I provided. He also suggested that I document design decisions, like the one regarding GDPR, and mentioned that there may be some changes once I start programming.

Regarding my database research, I explained that I'm using the CAP theorem to determine the system's requirements. Based on CAP, my system prioritizes Availability and Partition Tolerance because it needs low response times, as it's a game where users expect quick feedback. Partition Tolerance is also necessary for the system to function when the network is down. Data Consistency isn't as crucial since users aren't concerned about the accuracy of their game scores. I also mentioned that I looked into Polyglot Persistence, where each microservice would use a specific database suited to its use case.

Bartosz liked the approach I'm taking.

Next steps:

- Document the design decisions I just mentioned for the microservice architecture.
- Choose and start implementing the appropriate database for each microservice.

Checkpoint 5 review of the structure of your portfolio 08-10-2024

Jiang, Tony T.N.P. 3 months ago

I received feedback from Robert and Bartosz on my portfolio.

Robert's feedback: I need to write a bit more, especially in the "ambition" section. Overall, the structure is good.
Bartosz's feedback: I should look into what "manage and control" means, add a plan for how I will approach each learning outcome (LO) for this semester, and work on multiple LOs in parallel.

Plan for the next portfolio submission (Portfolio 2):
- Look into "manage and control" and what type of file it needs to contain.
-Update the structure: Include a detailed plan for each LO for the spring semester, outlining what I will do to achieve proficiency.
-Expand the "ambition" section: Add more information about myself and my goals.
-Increase pace: Begin working on two LOs in parallel to improve my efficiency.

Checkpoint 4 bp and ema 23-09-2024

Jiang, Tony T.N.P. 4 months ago

I showed Bartosz and Ema my main research question along with some sub-questions from my research plan. Ema asked why I chose Go, and I explained that it is becoming popular, offers scalability, and I want to learn it. Bartosz suggested modifying the main question slightly and adding my project name to it. He also recommended incorporating implementation-related sub-questions and referencing my project within them. Additionally, I currently lack a sub-question about best practices. Ema advised me not to focus on learning the basics of Go, but rather to emphasize non-functional requirements and learning outcomes. One potential sub-question could address deployment, such as how Go applications are deployed or how they could be deployed to the cloud. Overall, they thought it was a good research plan, with a few adjustments.

Checkpoint 3 individual project (Ema) 19-09-2024

Jiang, Tony T.N.P. 4 months ago

I showed Ema my non-functional requirements and my architecture diagram. She said that for the non-functional requirements, I need to be more detailed and specific, and I should do some research on them and provide reasons why. For the architecture, I should explain why I designed it this way, such as using microservices, and why I split it into those specific services. Always focus on the reasons behind these decisions.

Checkpoint 2 individual bp 19-09-2024

Jiang, Tony T.N.P. 4 months ago

We discussed how to create an enterprise architecture, including the process of building one, the role of packages and modules, and the reasoning behind dividing functionality into classes. We were encouraged to explore best practices for architecture design and to understand what should be avoided.

We also reviewed Timothy's architecture diagram, analyzed it for potential issues, and considered the reasons for dividing the services the way they were.

Additionally, there was a discussion on the importance of forming and expressing your opinions in a software environment. Speaking up and sharing your thoughts with co-workers is crucial, especially when they seek your input.

Checkpoint 1 bp indovidual 12-09-2024

Jiang, Tony T.N.P. 4 months ago

I presented my individual idea to Bartosz before working on the pitch PowerPoint presentation. The concept is a song-guessing game where the user has 3 to 5 attempts to guess the song. With each attempt, an additional second of the song is played to help the user make their guess. Users who are not logged in can only play the game once per day, while logged-in users can play as often as they like. Logged-in users can also create playlists of songs for others to play, which will be moderated.

There are three roles:

Admin: responsible for creating songs
Moderator: overseeing and moderating the playlists and users
User: the player of the game
Bartosz said this was a good starting point and suggested I consider some challenges, such as:

How many users do I want on the website, and how much revenue should the site generate monthly? For example, how would I manage 50,000 users?
How would I prevent cheating?
How would I handle bots?