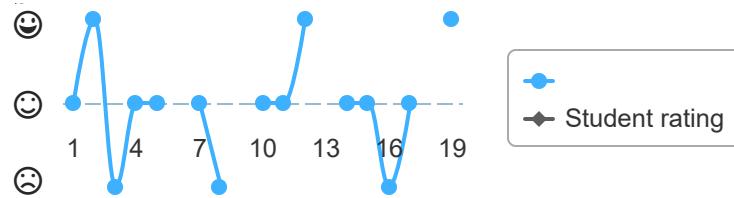


# FEED Pulse



## Hila, Renis R.

[My feedback](#)[Group feedback](#)[Peer feedback](#)

## Checkpoint 19 M17 - Maja 12-01-2026



Hila, Renis R. 2 days ago

Today, I spoke with Ms. Maja to present the progress I have made on my individual assignment, with a focus on the cloud implementation.

First, I showed her a detailed document in which I included screenshots and code snippets to demonstrate the completed work. I walked her through the document, explaining how the services are deployed and running in the cloud, how the databases were created, and how messaging is handled using a Kafka cluster in Confluent Cloud. I chose Confluent Cloud because Google Cloud did not natively support the Kafka setup required for my architecture.

Next, I demonstrated several testing scenarios, such as logging in as an admin, patient, and doctor, as well as creating new patients and verifying that kafka service correctly works. I also showed the code changes I made, mainly within the Dockerfiles of each service, to ensure compatibility with cloud deployment. Additionally, I discussed the challenges I encountered during this process and the conclusions I drew.

Following the advice from Ms. Xuemei last week, I also recorded a video demonstrating the cloud deployment and testing, as well as showing that the application still works locally using Docker. I apologized for the lower video quality, explaining that I had to record using my mobile phone because screen recording on my laptop caused it to freeze and become unusable.

Ms. Maja was pleased with the progress and confirmed that the technical work is finished. She asked whether I planned to continue improving or adding new features. I explained that my focus now will be on finalizing and polishing the portfolio, ensuring also that the first and second learning outcomes are clearly documented, complete, and well-supported with evidence.



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

Post feedback

## Checkpoint 18 Week16: Xuemei 07-01-2026 🔒



Hila, Renis R. 7 days ago

Today, I spoke with Ms. Xuemei about the work I have completed so far.

She mentioned that the main remaining technical learning outcome to demonstrate is Cloud Native. For this reason, I presented the work I completed during the winter vacation related to cloud deployment.

I explained that I successfully deployed four services on Google Cloud:

API Gateway;

Doctor Service;

Patient Service;

Authentication Service;

Each service was deployed with its own respective database, following a cloud-native, microservices-based architecture.

During deployment, Kafka did not function correctly in the cloud environment. To resolve this, I integrated Confluent Cloud, where I created a managed Kafka cluster and configured the required topics and events. This allowed the event-driven communication between services to work as intended after deployment to the cloud.

I also showed Ms. Xuemei the documentation I created for this part of the assignment, which includes screenshots, configuration details, and code snippets demonstrating the cloud setup and integrations. I explained that I was unable to record my screen during deployment because my laptop freezes when screen recording is enabled. Ms. Xuemei advised me that recording a short demonstration using my phone would be acceptable, even though I initially worried about presentation quality. She confirmed this would not be a problem.

Overall, she indicated that I am almost finished with the technical learning outcomes and was pleased with the progress I have made. The final remaining task is to record and demonstrate testing that proves the cloud deployment is integrated and functioning correctly.

## Checkpoint 17 M15 - Maja 15-12-2025 🔒



Hila, Renis R. a month ago

Today, I spoke with Ms. Maja and presented the work I have completed so far.

First, I provided a short summary of my OWASP Top 10 document, including the feedback received from Ms. Xuemei. Ms. Xuemei, confirmed that the document is of good quality and suggested that it would be beneficial to implement HTTPS/TLS instead of HTTP. However, she also mentioned that if there is not enough time to implement this, it is acceptable to leave it as a recommendation rather than a full implementation.

Second, I presented the results of the second load test conducted after deploying the application on Kubernetes as part of my individual assignment. The issues identified in the first load test were resolved through the use of Kubernetes and Horizontal Pod Autoscaling. This resulted in a significant improvement: the failure rate was reduced from 12.93% to 4.2% under a load of 1,000 concurrent users. During this test, the application neither failed nor slowed down noticeably.

I also ran a one-hour load test to determine the maximum number of concurrent users the system could handle. The system reached approximately 1,693 concurrent users before performance gradually began to degrade. This limitation was mainly due to the hardware constraints of my laptop. In a cloud environment, this number would likely be significantly higher. I explained additional factors affecting performance, such as pod configurations and the number of replicas per service etc.

Finally, we discussed the cloud deployment. I explained that I am currently studying documentation and tutorials to prepare for deployment. My initial idea was to deploy the API Gateway and integrate a cloud service into the application. I considered using cloud storage to store patient and user data. However, Ms. Maja advised me to verify this approach, as integrating cloud storage through the API Gateway might introduce unnecessary complexity. She suggested that focusing on implementing only one of these components could be a better approach. I am still exploring possible solutions and learning how to implement them correctly.

Overall, Ms. Maja was pleased with the progress I have made and indicated that the cloud deployment should not pose a major problem.

**Checkpoint 16 P3: Xuemei 10-12-2025**

⚠ You didn't submit feedback for this checkpoint.

**Checkpoint 15 3rd portfolio review Robbert 08-12-2025**

Hila, Renis R. a month ago

Today I spoke with Mr. Robbert about the portfolio delivery, specifically regarding two learning outcomes: Professional Standards and Personal Leadership.

First, I showed him the documents and the work I had completed for the Professional Standards learning outcome. I walked him through the GDPR document, explaining why I believe it demonstrates my understanding of professional standards and good practice.

Next, we discussed the Personal Leadership learning outcome. I showed him what I had included so far, but he clarified what he actually expects to see in this section. He explained that I need to write more about my strengths and weaknesses, where I see room for improvement, how I take accountability, and how I demonstrate leadership within the group project. Based on this, he mentioned that for Professional Standards I am close to achieving Proficient, but for Personal Leadership there is still work to be done before reaching that level.

I also asked him about the situation with the stakeholders and the meeting we had last week, because I disagreed with some of the comments they made. While our group certainly has areas to improve, I don't believe the situation is as bad as they described. Additionally, the stakeholders sometimes do not check the documents or emails we send them, yet they claim they did not receive the information. I had promised my teammates not to mention this and other things, in order to avoid creating conflict, but I discussed it with Mr. Robbert. He advised me to be honest, and in my portfolio I should mention everything clearly.

**Checkpoint 14 M13 - Maja 01-12-2025**

Hila, Renis R. a month ago

Today I showed the work completed so far to Ms. Maja.

First, I explained an issue with Grafana that occurred about 10–20 minutes before the meeting, which caused all my dashboards to disappear. Fortunately, this is not a major problem since I have all the dashboard scripts stored in the project. I then presented all the dashboards and their panels using the monitoring document I prepared.

Next, I showed the results of the load tests for 100, 500, and 1000 users. I presented the issues I identified, the possible reasons behind them, and potential solutions. I believe that deploying everything to Kubernetes and implementing autoscaling could resolve these bottlenecks, but this still needs to be tested. I also demonstrated that I can observe and monitor each service individually.

After that, I presented the updated OWASP Top 10 document, including the implementation details and the evaluation for each vulnerability category. I highlighted the three most important OWASP items for the type of application I am developing and explained why these are critical.

Finally, I presented the cloud analysis document, which compares three cloud providers. I explained what I liked and disliked about each option and the reasoning behind choosing Google Cloud.

Ms. Maja mentioned that I have made good progress and that the OWASP Top 10 work is satisfactory. She approved my cloud choice and advised me to improve at least one issue identified from the load testing and monitoring.

## Checkpoint 13 Week 12: Xuemei 26-11-2025 🔒



Hila, Renis R. 2 months ago

Today, I presented my recent progress to Ms. Xuemei.

First, I showed her the setup of Prometheus and Grafana, along with a monitoring document explaining the dashboards, the panels I created, and the reasoning behind each of them.

The only part still missing is the load testing. I am currently facing issues with installing K6 properly in my project, so I am exploring alternative tools such as JMeter.

I also presented the updated GDPR document, including the legal justification for using soft delete instead of permanently deleting patient and doctor data. As explained, Albanian law does not allow permanent deletion, and GDPR Article 17 (sections 2 and 3) provides exemptions regarding the right to erasure in the context of medical care.

Next, I showed the updated CIA document, where I explained the security measures I have implemented, the reasons behind them, and the remaining gaps I have identified. The current implementation is sufficient, but if there is time left after completing the other learning outcomes, I may implement additional security features such as multifactor authentication.

Regarding OWASP Top 10, I am still updating the document. Initially, I planned to rely only on ZAP, but it does not allow me to test all relevant aspects. Therefore, I am considering combining multiple tools such as ZAP, Trivy, npm audit, etc.

Ms. Xuemei mentioned that I have made considerable progress and that I am on the right track. She advised me to focus on completing the load testing first and then continue working on the remaining learning outcomes.

-Plan moving forward (based on feedback):

-Load Testing

-Update OWASP Top 10 document, using the appropriate combination of tools

-Push the project to Kubernetes

-Create an analysis document explaining the choice of cloud provider (e.g., Azure, Google Cloud, etc.)

-Deploy the API Gateway to the cloud

-Integrate at least one cloud service into the project

## Checkpoint 12 M11 - Maja 17-11-2025 🔒



Hila, Renis R. 2 months ago

Today I received feedback from Ms. Maja, where I presented the work completed so far and my plans for the coming days.

First, I showed that I have increased the test coverage in SonarCloud to 68.8%. I asked whether this level would be sufficient or if I should increase it further. She confirmed that this is enough. I also showed the Test Report document, which is now complete except for the load testing section.

Next, I demonstrated my CI/CD pipeline setup, which currently follows this order:

Change Detection → Tests → Integration → Deploy.

In the first step, the pipeline checks which service has changed. Then it only runs the tests for the changed service and skips tests for the others. After that, the pipeline builds the service and deploys it to Docker Hub.

I also explained the types of testing I have implemented:

- Event-driven integration tests (Kafka)
- API Gateway integration flow tests
- End-to-end testing for the frontend (run locally and via Docker), I completed three E2E tests, and she confirmed that this is sufficient.

At the moment, I am working on fixing Prometheus and Grafana, because three Docker containers are failing and throwing errors. I want to resolve this to implement proper monitoring.

For load testing, I am considering using k6(not decided 100%), but I will focus on that only after the monitoring setup is working.

I need to update the CIA and OWASP Top 10 documents with concrete proofs of what I have implemented. I asked Ms. Maja whether I should perform manual OWASP testing or use automated tools. She recommended using an automated tool, since manually testing everything would take too much time, especially for a system of bigger size.

Regarding GDPR, I explained that Albanian law does not allow complete deletion of medical data, meaning I cannot implement full deletion. For this reason, I use soft delete, marking the user's data as inactive rather than permanently removing it. This, along with OWASP and CIA improvements, will be included in the updated documents.

My plan moving forward is to complete these fixes and updates. If everything

goes well, I want to continue by working with Kubernetes, pushing further improvements, and later deploying the API Gateway to the cloud.

Ms. Maja mentioned that I have made good progress, but there is still work to do on the remaining components.

## Checkpoint 11 Week10: Xuemei 12-11-2025 🔒



Hila, Renis R. 2 months ago

Today, I spoke with Ms. Xuemei, where I first presented the GDPR document, CIA document, and the first draft of the OWASP document.

She mentioned that the documents are on the right track, but I need to clearly show which elements are implemented and working, providing proof where possible.

For example, regarding the GDPR document, I should demonstrate the compliance aspect related to Albanian law — specifically, that data which has been soft-deleted is permanently removed after a period of 30–60 days.

Additionally, she advised me to use OWASP ZAP or another suitable tool to verify that the application meets the OWASP Top 10 security conditions. In my case, I plan to focus on the following key items that are most relevant to my project:

- A10: Mishandling of Exceptional Conditions
- A03: Software Supply Chain Failures
- A02: Security Misconfiguration

Next, I showed her the replay of the user story with the Kafka service, which I had not demonstrated previously.

Finally, I presented the integration of SonarCloud and the current code coverage results. I asked whether testing one service would be sufficient or if I should test multiple ones. Ms. Xuemei advised that I should cover most of the important services and aim for at least 80% test coverage.

She concluded by saying that I have made good progress so far, but I should focus on refining and improving my existing work and concentrate more on DevOps aspects, including load testing, integration testing, and related practices.

Checkpoint 10 M9 - Maja 12-11-2025 

Hila, Renis R. 2 months ago

Overall, the feedback on the portfolio highlights good progress and a clear understanding of the project structure. However, several areas still require deeper development and more evidence to reach the Proficient level.

For Scalable Architecture, the implementation of multiple services with individual databases and the use of Kafka messaging for synchronization were well received. The system design shows scalability in principle, though further explanation and documentation on how scalability is achieved in practice would strengthen this area.

For Development and Operations (DevOps), the separation of pipelines for build, test, Sonar, and Docker was positively noted. The main point of improvement is the integration of a monitoring solution to track application health and deployment performance, as well as adding more comprehensive testing, including load and integration tests.

In Security by Design, the initial versions of the CIA and GDPR documents were appreciated, showing understanding of key security principles. However, feedback emphasized the need for external or peer validation of these documents, along with practical evidence of implemented security measures such as JWT authentication and password hashing.

For Distributed Data, progress was acknowledged for analyzing data flow across services and documenting how synchronization occurs. To improve, it is recommended to further detail how consistency and integrity are maintained during data distribution.

## Checkpoint 9 Meeting with Robbert 30-10-2025 🔒



Hila, Renis R. 3 months ago

Today, I spoke with Mr. Robbert regarding my search for an internship for the next semester. I showed him my CV and the applications I have already sent, explaining that I have unfortunately not been successful in finding an internship so far. I asked for his advice and guidance, as well as possible referrals to companies or university research teams where I could apply. I also mentioned that I am quite worried, since I cannot swap semesters again (having already done so once before) and, as an international student, I pay a significantly higher tuition fee.

Mr. Robbert gave several helpful suggestions. First, he recommended that I attend the Career Day on November 6th, as many companies and research teams will be present there. He advised me to research in advance which teams or organizations will attend and understand what kind of profiles they are looking for.

Secondly, he encouraged me to personally contact the companies I am applying to — by calling or sending messages — to ask questions and express genuine interest. He explained that even if some companies do not respond positively or end the call, I should not get discouraged. Instead, I should keep trying and reach out to other companies, as this approach demonstrates initiative, persistence, and motivation, helping me stand out from other applicants rather than being just an anonymous name in their inbox.

Lastly, he advised me to take time to understand myself better — to recognize my strengths and weaknesses — so I can find a balance and better align my internship search with positions that fit my profile.

**Checkpoint 8 Week8: Xuemei 29-10-2025****Hila, Renis R.** 3 months ago

Today, I received feedback from Ms. Xuemei regarding my individual project progress.

First, she asked to review my architecture document, where I showed the C1, C2, and C3 diagrams. I mentioned that I have not done the C4 diagram. Ms. Xuemei explained that to address the "replay of user stories" mentioned by Ms. Maja, I should create a sequence diagram or flowchart for one of the services and it can be used as a C4. I also mention that the C2 diagram needs to be updated to include Kafka messaging, to make the communication flow clearer.

Next, I presented the technology justification section, in which I explain the technologies I selected and the reasoning behind each choice. Ms. Xuemei suggested that I could further strengthen this section by linking it to the Data Distribution learning outcome—specifically by explaining which data is stored in each database and why.

I also demonstrated my implemented user stories(demo), showing the login functionality for different roles (doctor, admin, and patient). I mentioned that there are still some bugs in the implementation, which I plan to fix later—not for the upcoming November 2nd delivery, but afterward. For this delivery, I will mainly focus on testing, including unit tests, end-to-end tests, load tests and ci/cd.

Initially, I planned to use SonarCloud for code quality checks when pushing to the cloud, but Ms. Xuemei suggested I can use SonarQube locally and present that instead.

We also discussed that while I have made progress, I am still behind on certain learning outcomes, particularly Security and Data Distribution. I asked what can i do more to in these show in these learning outcome. She advised me like with Architecture document to include the Data Distribution, to create documentation explaining GDPR compliance and a CIA (Confidentiality, Integrity, Availability) analysis of the system.

These were very helpful and practical suggestions. For the upcoming delivery, I will focus on:

- 1)Writing the Security & GDPR documentation
- 2)Updating the C2 diagram to include Kafka messaging
- 3)Creating a sequence diagram for the user story replay
- 4)Implementing and demonstrating testing and CI/CD pipeline improvements

**Pu, Xuemei X. (Teacher)** 3 months ago

Dear Renis,

Good summary. try to catch up. Keep up.

### Checkpoint 7 W7 - Maja 22-10-2025 🔒



Pesic, Maja M. (Teacher) 3 months ago

Dear Renis,

you seem to have implemented many user stories, but you cannot demo them due to some strange error. Please make sure that you can demo what you have implemented during the next meeting. And continue with working forward.

Regards,  
Maja

## Checkpoint 6 X6: 1st portfolio review 08-10-2025 🔒



Hila, Renis R. 3 months ago

Today, I reviewed my first portfolio delivery with Ms. Xuemei. I began by showing the documents included under each deliverable category in the Deliverables Portfolio (e.g., Analyse, Design, Advise, etc.). The current portfolio structure follows the format previously suggested by Mr. Robbert.

Ms. Xuemei advised me to reorganize the documents according to the HBO-I domain description guidelines.

Next, I presented the Project Overview Portfolio, which contains individual sections for each learning outcome. For each learning outcome, I included the documents that best demonstrate my achievement and provided a self-assessment grade. I also showed my CI/CD setup, which currently fails but will be fixed in the next iteration. Additionally, I presented the Docker setup, where I tested if the containers could run properly on my device. My plan is to have each service running in its own Docker container, and they are all inside a larger "master" container that manages them under the same network.

I rated myself as Orienting for Cloud Native, Security by Design, and Distributed Data, and Beginning for the remaining learning outcomes—based on the grading scale presented by Mr. Robbert.

Ms. Xuemei provided feedback on these self-assessments and explained the meaning of each grade. She also mentioned an additional grade, Undefined, which applies when there is insufficient supporting evidence. Since I currently lack concrete proof for Cloud Native, Security by Design, and Distributed Data, these will be marked as Undefined, while the remaining learning outcomes will stay at the Orienting level.



Pu, Xuemei X. (Teacher) 3 months ago

Dear Renis,

Try to create a catch-up plan — you'll need to increase your pace to stay on track.

## Checkpoint 5 M5 - Maja 29-09-2025 🔒



Hila, Renis R. 4 months ago

Today I presented my progress to Ms. Maja: the user stories, the architecture document (C4 diagrams), and the initial frontend prototype (UI only, not yet connected to the backend).

I explained that I created 12 user stories and plan to implement 5 that best demonstrate the learning outcomes. Ms. Maja approved these choices.

On non-functional requirements, we discussed data deletion for patients. She suggested three options: permanently delete all patient data, anonymize the patient while retaining records, or mark the patient as inactive while keeping data accessible. She advised me to research more for each approach.

Regarding availability and deployment, Ms. Maja noted that the app must consider global use (not just NL) so availability windows should not be limited to local business hours. For maintenance and uptime she recommended using Kubernetes (scalable pods) and gradual deployments (e.g., canary or phased rollouts of v1 → v2) rather than announcing downtime.

For the architecture she recommended renaming the "messaging service" to notification service (to avoid confusion with messaging brokers like Kafka) and using multiple databases so each service owns its data store—this reduces the risk of a single database becoming a bottleneck. She asked me to review and revise the C4 diagrams and reconsider the design based on these points.

When I showed the frontend mockups, Ms. Maja advised a step-by-step approach: start with a minimal demo (a "hello world"), then incrementally add features and integrations. She also recommended setting up proper Git repositories and a CI/CD pipeline. I explained my preference for separate repositories per service to simplify testing and deployments.

Overall, the feedback was constructive: focus on clarifying NFRs with specific, research-backed decisions, revise the architecture and C4 diagrams accordingly, and proceed incrementally with implementation and deployment automation.

**Checkpoint 4 W4: update (xuemei) 25-09-2025**

Hila, Renis R. 4 months ago

Today, I presented the progress of my individual assignment to Ms. Xuemei, requested her feedback, and asked several questions regarding the user stories and the architecture document.

**User Stories:**

I created a total of 12 user stories, of which I plan to implement 5 that best demonstrate the learning outcomes. Ms. Xuemei agreed with this approach but advised me to also consult with Ms. Maja for her approval.

**Non-Functional Requirements (NFRs):**

I asked whether NFRs should be included in the user stories. My initial thought was that they should only be placed in the architecture document (e.g., number of users should be handled , security, etc.). However, she clarified that NFRs should be included both in the user stories , and that the architecture document should also clearly explain why I chose certain technologies and designs.

**C Diagrams:**

I asked which C-diagrams are required. She confirmed that C1 and C2 are mandatory, and for C3, I should create one for one of the services. I admitted that my diagrams are not yet ready but will be finished today or tomorrow at the latest. I asked if I should send them to her, but she said it is not necessary; instead, I should present them next week to Ms. Maja for feedback.

**General Feedback:**

Ms. Xuemei emphasized that I am currently behind schedule and need to speed up my progress to stay on track.



Pu, Xuemei X. (Teacher) 3 months ago

Keep going

**Checkpoint 3 M4 - Maja 22-09-2025** **Pesic, Maja M.** (Teacher) 4 months ago

You are behind with progress. It is now week 4 and you still did not make requirements (functional and non-functional) and architecture design. Please speed up!

**Checkpoint 2 1st meeting with Robbert 22-09-2025**

Hila, Renis R. 4 months ago

Today, I had my first meeting with Mr. Robbert, where we discussed my experiences at Fontys, the previous semesters, my internship, and my goals for the future.

I began by explaining the reasons why I had to repeat the first and second semesters. In the first semester, I became very ill and was unable to study for the final exam, which caused me to fail. In the second semester, I regularly received positive feedback from my teacher, but during the final presentation, I was told I was missing important elements. I disagreed with this, contacted the exam board, but unfortunately received a response too late—only a few days before the new semester started. As a result, I repeated the semester and continued after discussing it with my parents. In that repetition, I mainly did the same project again, only changing small details such as the colors of the website. After these two semesters, however, I managed to pass all the following semesters without repeating.

Mr. Robbert asked me what I had learned from these experiences. I explained that I no longer stress too much about failing or passing and that I now focus less on small details. I also learned the importance of writing detailed and descriptive feedback to properly document my work—an advice I received both in the second semester and again today from him.

We then continued with other semesters. During my specialization in Cyber Security, I enjoyed learning new things and practicing “out of the box” thinking—trying different ways to break programs and, if I couldn’t, recognizing that the program was well built. The only downside was the large amount of documentation. For my minor at Pulse, I had a very different experience compared to programming. For example, my group designed a fork adapted for a paralyzed person, which she later sent us a photo of her using. It was rewarding to do something meaningful. During the minor, I also learned how to deal better with stress and how to reflect on what pushes me forward or holds me back, with valuable input from both coaches and fellow students.

For my internship, I was unable to find a company outside Fontys, but I was fortunate to do my internship here. I had a very supportive company coach who was always available, and I also got the chance to visit the partner company every two weeks, which gave me insight into how Dutch companies operate. This experience taught me a lot about communication, especially with managers, how to give better presentations, and how to create better documentation. Again, Mr. Robbert emphasized the importance of documentation, as it is proof of the agreements and work done during the

internship.

Finally, we discussed my upcoming graduation internship and future plans. I explained that I am already searching via LinkedIn and through companies where my friends work, and I also asked if doing the internship in Albania would be possible, to which he said yes. He asked about my future plans—whether I want to stay in the Netherlands or move back home. I told him I am still undecided, as I want to gain more experience abroad and also earn better financially before making that decision. He advised me not to show this indecision during interviews, as companies often see graduation internships as a way to evaluate candidates for future employment. If I appear uncertain, they may choose someone else. He also advised me to look for a company that will help me grow, stay updated, and learn, rather than one that only offers quick money or sees me as a workhorse.

### Checkpoint 1 W2: IP pitching (Xuemei) 10-09-2025 🔒



Hila, Renis R. 4 months ago

I presented my individual project idea HealthConnect to the teacher. I explained the purpose of the web application, its main functionalities for patients and doctors/admins, the challenges that make it suitable for Complex Software Systems, and my initial architecture choices. The teacher gave positive feedback but suggested a few improvements: to explore a messaging-based architecture instead of only relying on REST APIs, to include the pharmacy as an additional stakeholder with its own use case, and to separate the doctor and admin functionalities more clearly. Overall, the idea was considered good, with room for refinement and expansion.