



Intro to Software Engineering

Software Design Specifications Template

Team

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Project: Buying and renting system

Software Design Specifications

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Phase 1

- **This section should contain everything related to phase 1 after modifications performed based on the comments that you have received from your TA during phase 1 discussion**

1) Requirement 1 : Allow service provider to add products (user story 1)

Actor: Service provider

Details: This function is when a service provider needs to add a products to the account to show his products.

2) Requirement 2 : Allow service provider to description to the product using strings(user story 2)

Actor : service provider

Details : This function is used when the service provider needs to set description of the added products.

3) Requirement 3 : Allow service provider to add the balance of the product (user story 3)

Actor : service provider

Details : This function is used when the service provider wish to add a balance to the added product

4) Requirement 4 : Allow service provider to register to a profile using email and a password(user story 4)

Actor : service provider

Details : This function is used to create a profile or account to the service provider so he would be able to use the account later on.

5) Requirement 5 : Allow service provider to login to the profile using email and password (user story 5)

Actor : service provider

Details : This function is used to by the service provider to access his created profile using his email and password so he would begin using the account.

6) Requirement 6 : Allow customer to register a profile using email and password (user story 6)

Actor : customer

Details : This function is used to create account for the customer so he be able to use the account for buying or renting later on.

7) Requirement 7: Allow customer to login to a profile using email and password(user story 7)



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Actor : Customer

Details : This function is used when the customer wish to access his account using his email and password.

- 8) Requirement 8: Allow service provider to edit the profile credentials (user story 8)

Actor : Service provider

Details : This function is used to let the service provider to edit his profile attributes such as name, mobile phone and products.

- 9) Requirement 9: Allow customer to edit the profile credentials(user story 9)

Actor : Customer

Details: This function is used to let the customer user to edit the profile attributes such as name, mobile phone and ID

- 10) Requirement 10: Allow customer to view products(user story 10)

Actor : Customer

Details : This function is used to let the customer to see and scroll through all products published at the system.

- 11) Requirement 11: Allow customer to view categories of products(user story 11)

Actor : Customer

Details : This function is used to let the customer reach what he is searching for by dividing products into categories.

- 12) Requirement 12 : Allow customer to view available offers(user story 12)

Actor : Customer

Details : This Function is used to let the customer to scroll down all the available offers offered by the service providers at the system

- 13) Requirement 13 : Allow customer to view products details(user story 13)

Actor : Customer

Details : This function is used to let the Customer to view details of a product so he would see all attributes of the product in a clear way.

- 14) Requirement 14 : Allow customer to add coins to the e-wallet(user story 14)

Actor : Customer

Details : This function is used to let customer to add e-coins into his profile so he would later on use it for buying or renting products

- 15) Requirement 15 : Allow customer to rent the products(user story 15)

Actor : Customer

Details : This function is used to let the customer be a able to rent products.

- 16) Requirement 16 : Allow service provider to edit the profile email and password(user story 16)

Actor : service provider

Details : This function is used to let the user to edit the login credentials later.



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- 17) Requirement 17 : Allow customers to edit the profile email and password(user story 17)
Actor : Customer
Details : This function is used to let the customer to edit the login credentials later on.
- 18) Requirement 18 : Allow service provider to make sales and offers(user story 18)
Actor : service provider
Details : This function is used to let the service provider to add offers and sales on desired products.
- 19) Requirement 19 : Allow Admin to view current available renter and customers(user story 19)
Actor : Admin
Details : This function is used to count service providers and customers available on the system so that can be used to track the system progress later on.
- 20) Requirement 20 : Allow customer to buy products (user story 20)
Actor : Customer
Details : This function is used to let the customer to buy products and validating the e-coins in his account.
- 21) Requirement 21: Allow guest user to choose either to be service provider or customer(user story 21)
Actor : guest user
Details : This function is used to let the guest user either to be a service provider or a customer so that he can do functions of service providers or customers
- 22) Requirement 22: Allow service provider to increase his balance by every buy/rent
Actor : service provider
Details : This function is used to increase the balance of the service provider and decrease it from the customer.

Non Functional Requirements

Performance Requirements

The software must run on low-specs computers and has low response time max 2 seconds.

Safety Requirements

*Servers must be handled in a secure building with privilege access only to the admins.
Servers must handle 10000 concurrent user in the beginning that can be more scaled in the future*



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Security Requirements

System data must be encrypted using utf-8 encryption. so if its accessible it can't be understandable.

Software Quality Attributes

The software must be with a low response time minimum 2 seconds, so it l'll be easy to move from one function to another without any crashes.

Software UI must be created in a simple way so it'll be easy for all the users to use it.



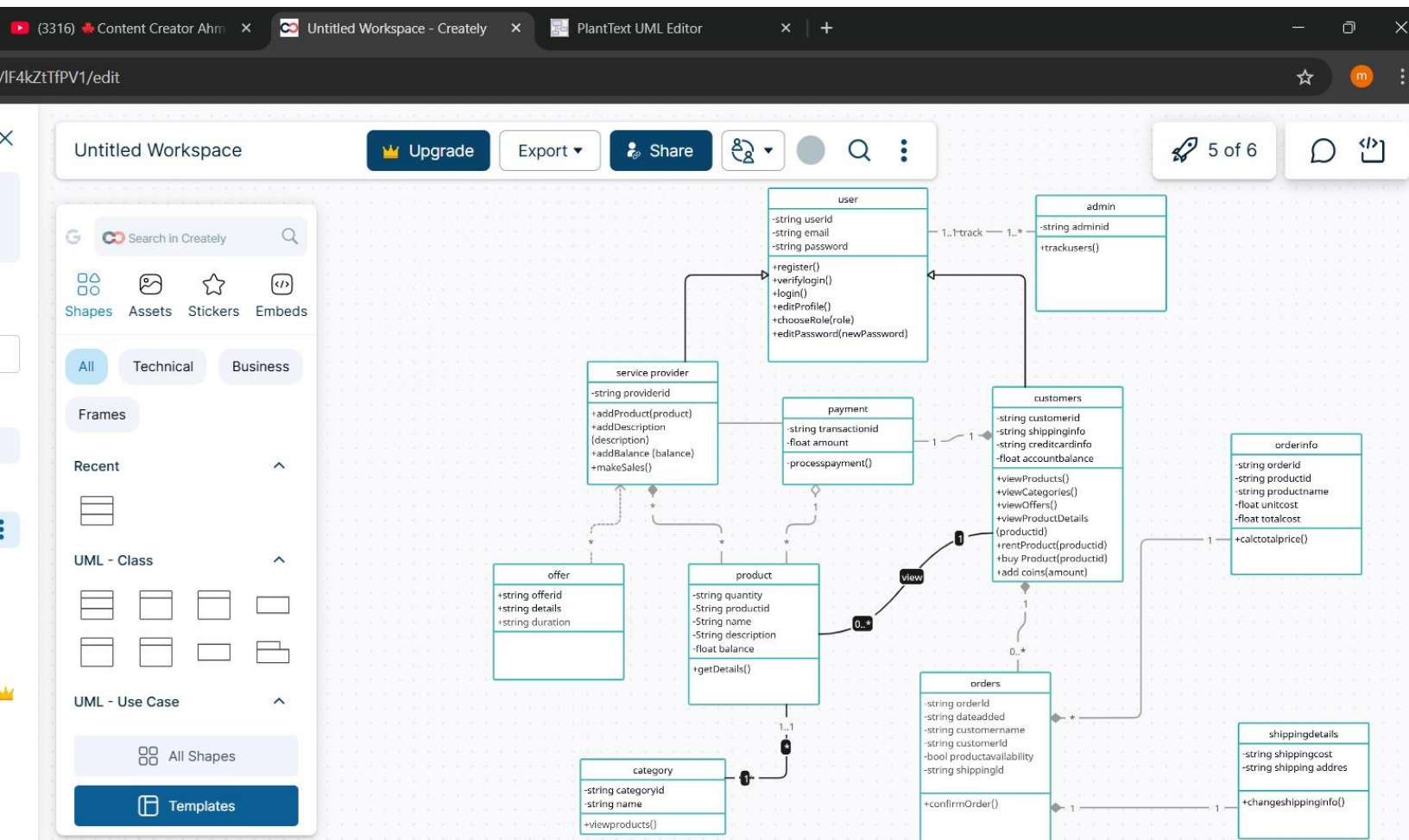
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Class Diagram

- This section should include a detailed class diagram for your software including the classes and their relationships





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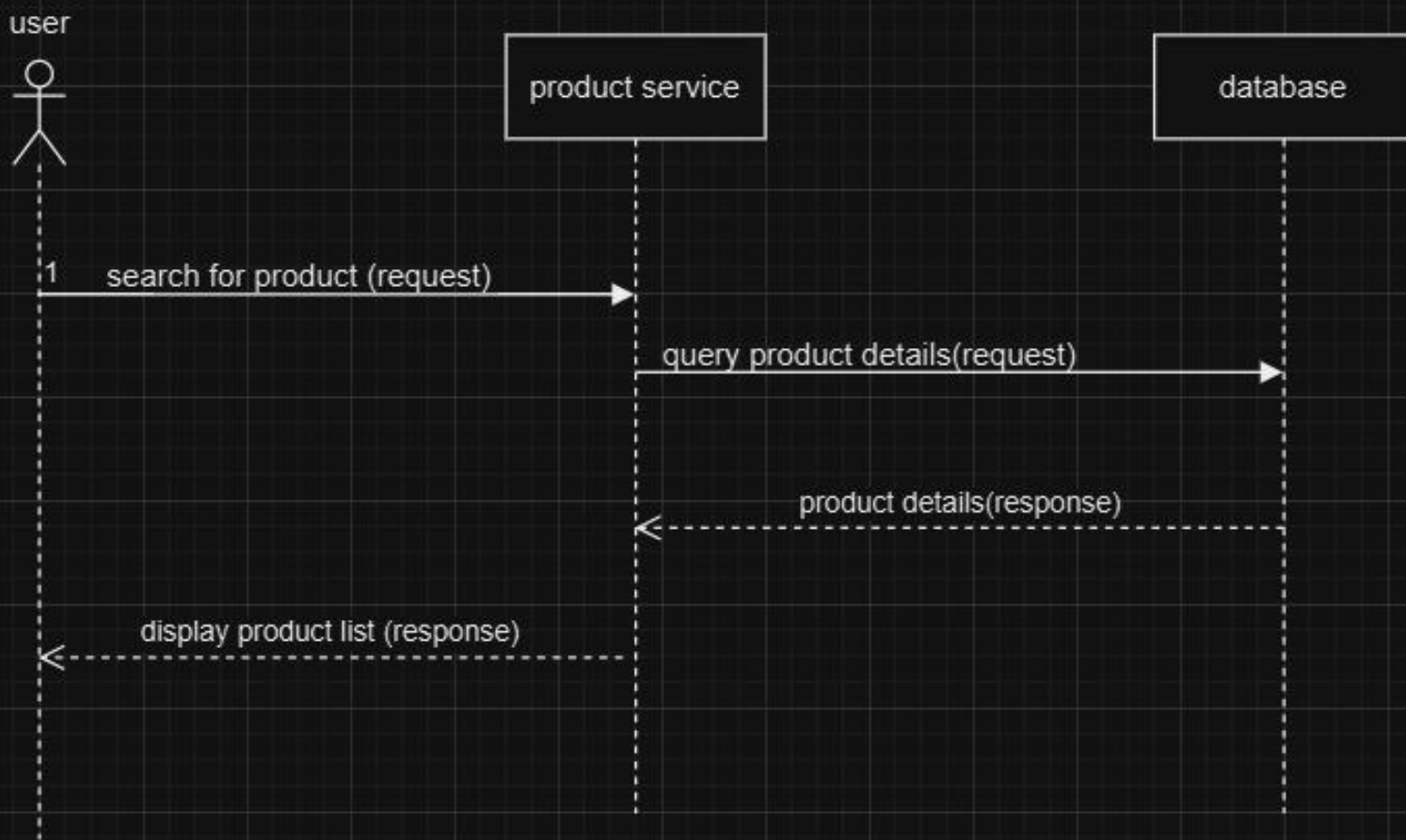
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Sequence Diagram

- This section should include the sequence diagrams for the features included in your software

product searching sequence

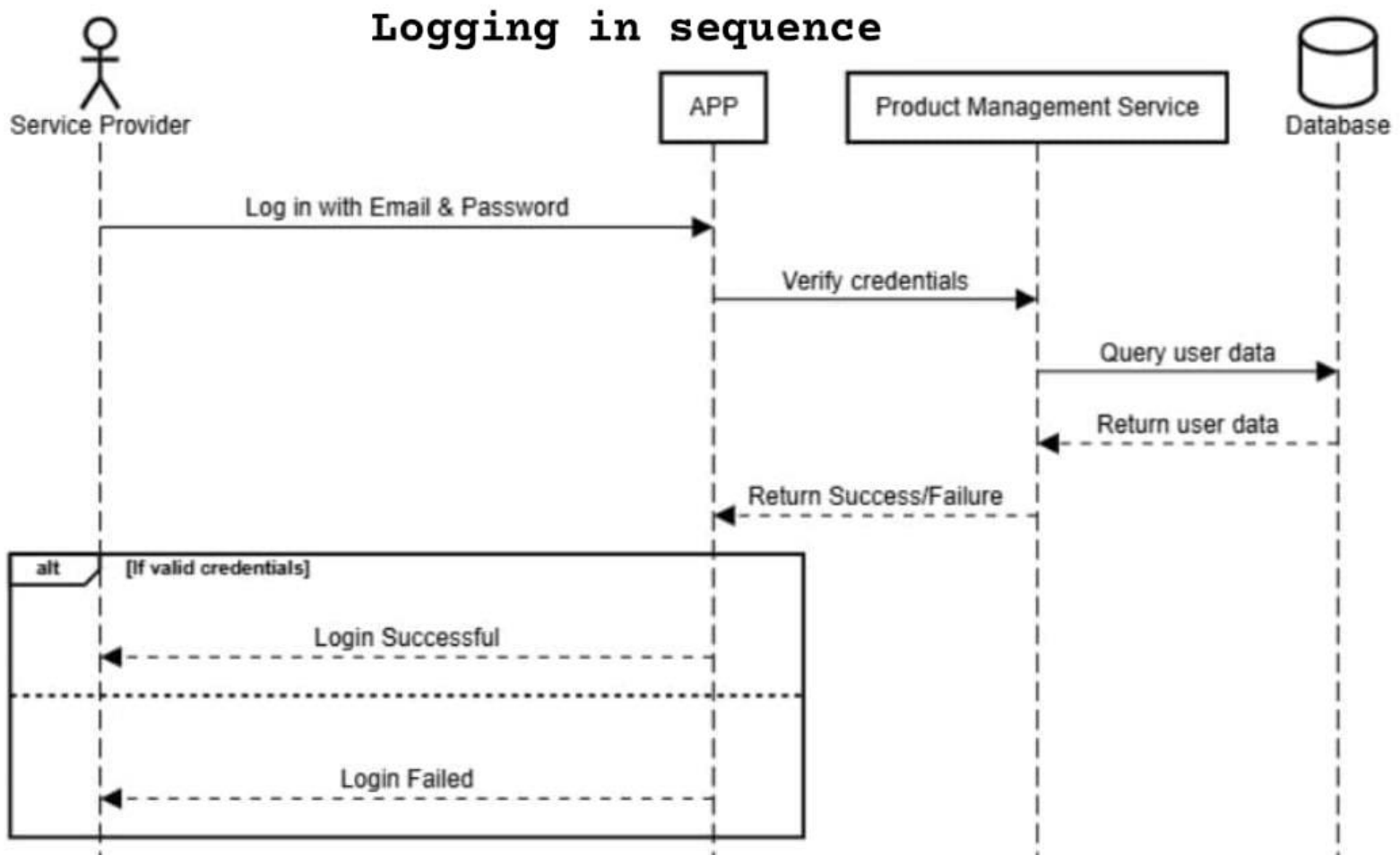




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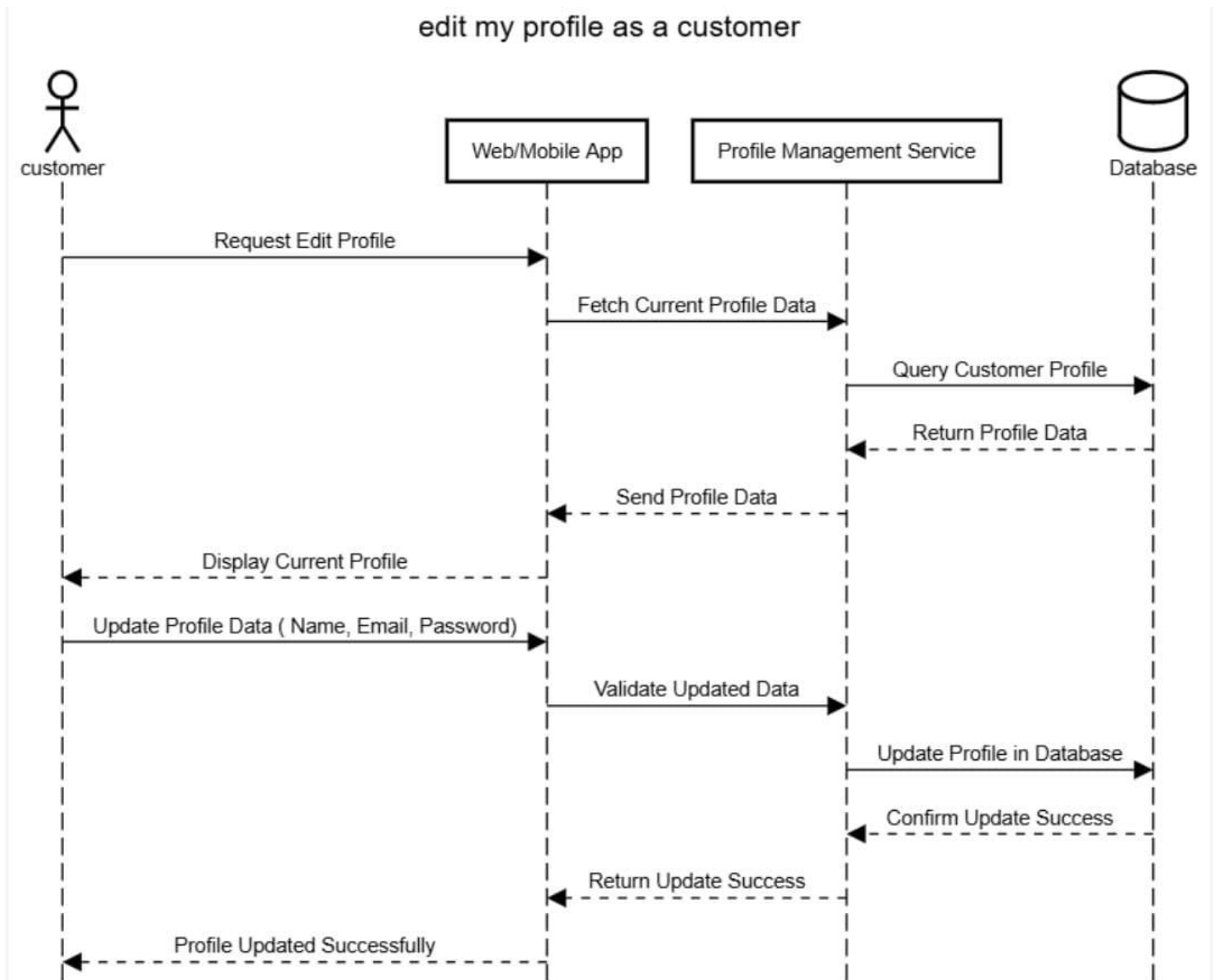




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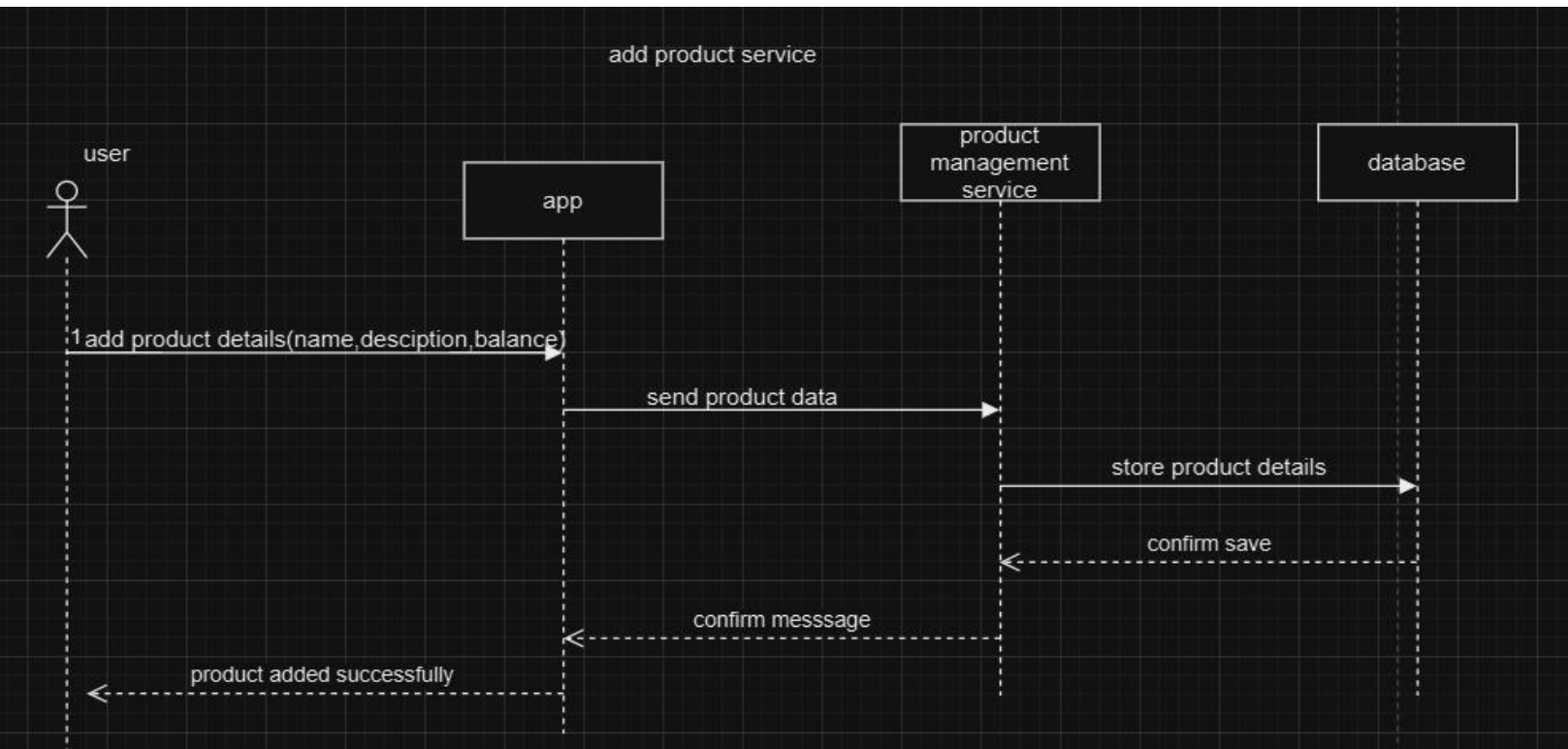




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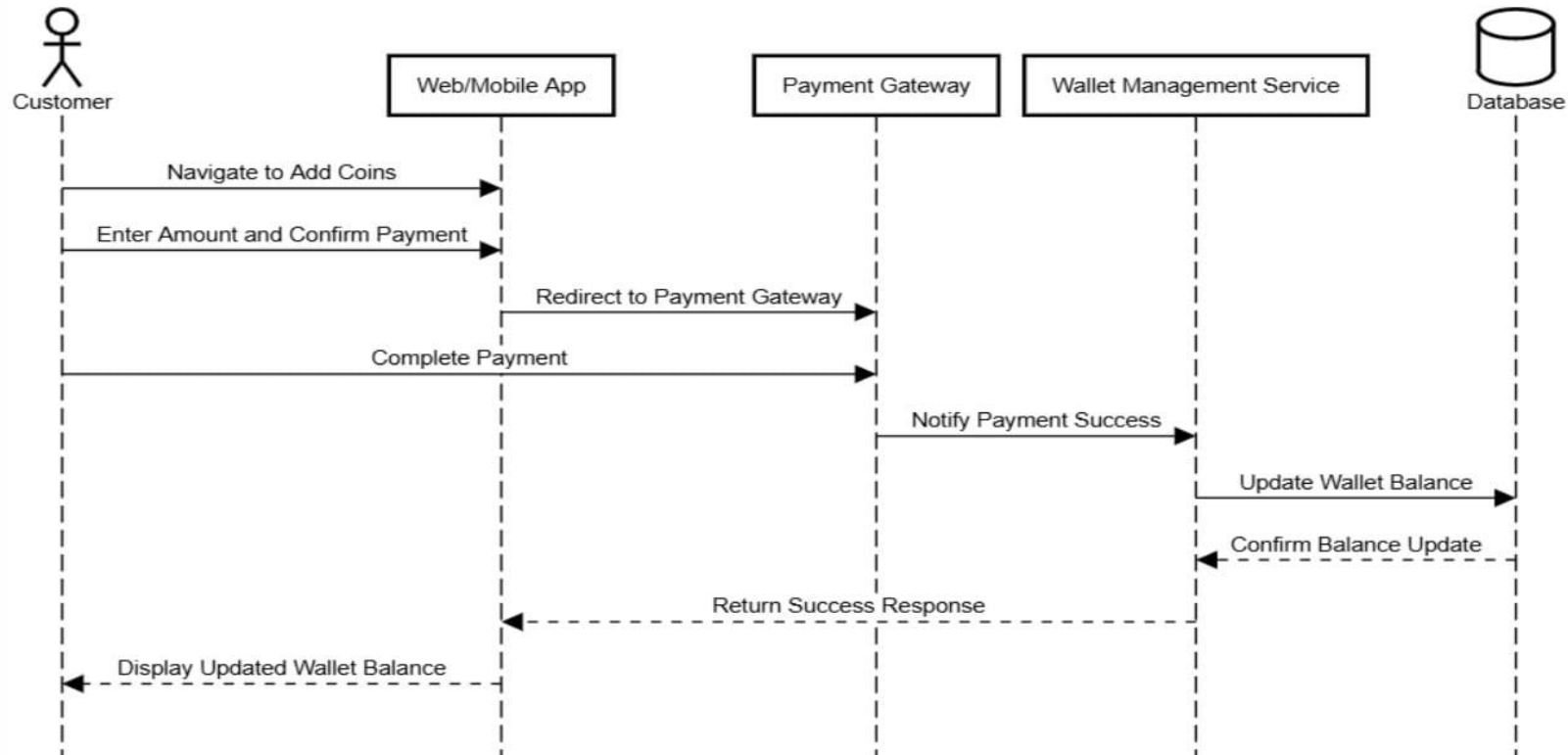


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add coins to wallet

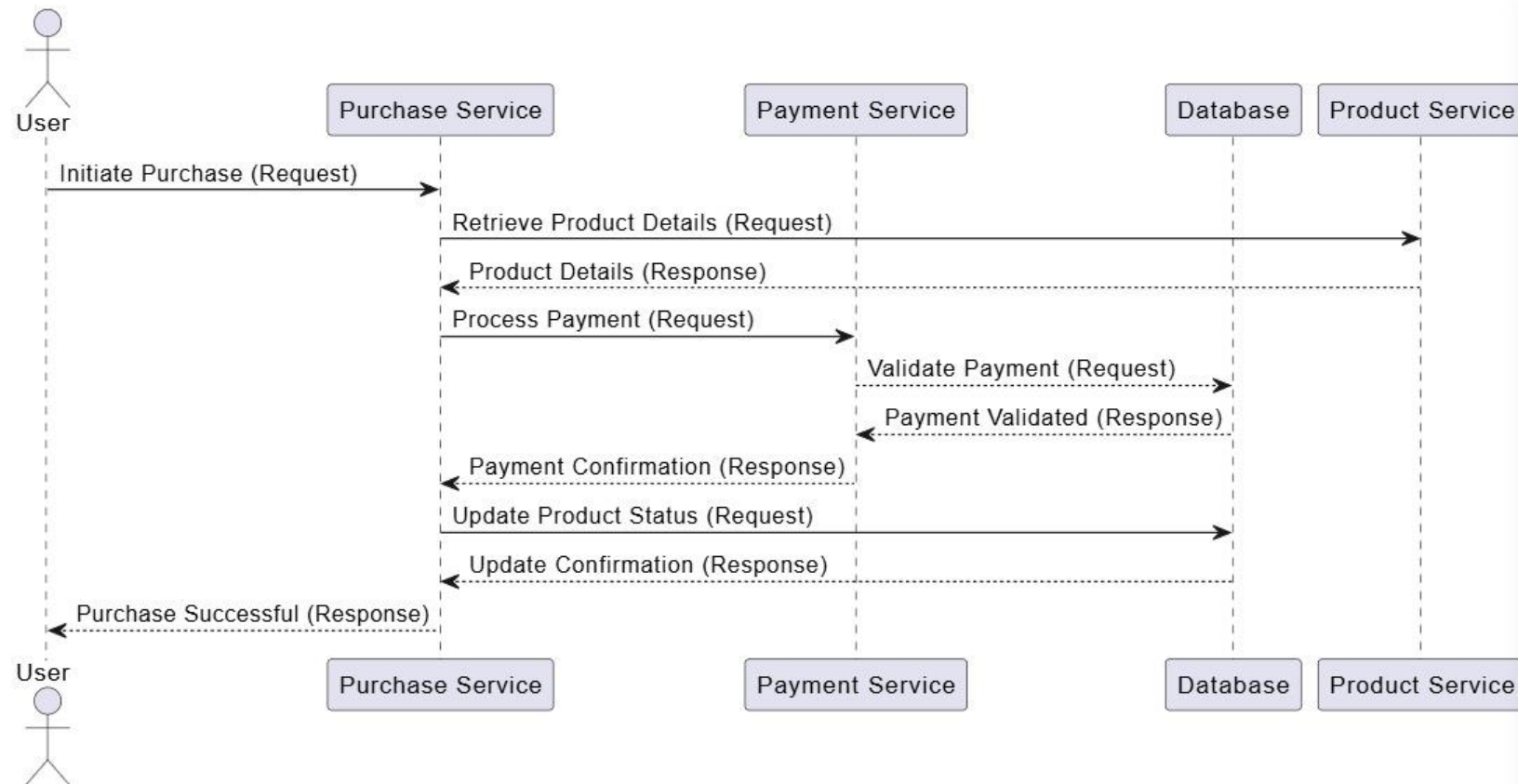




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Grading Criteria (10 points)

Topic	Grade
Phase 1 - Modifications	2
Class Diagram <ul style="list-style-type: none"> Number of classes is consistent with the main features required Classes should address all the required features Classes include their attributes & functions Relationships between classes Overall consistency 	4
Sequence Diagram <ul style="list-style-type: none"> 2 * size of the team (For example, Team of 3 members should draw 6 sequence diagrams) Should specify the correct flow of a feature, actors, Object lifetimes and message kind (i.e sync/async – request/response) Consistency with class diagram 	4



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Submission Guidelines

- Format: Teams are required to submit their project documentation as a PDF.
- GitHub Repository Links: Ensure that the links to your GitHub repositories are included in the PDF.
- Submission Method: The completed document should be uploaded through the classroom platform by the specified deadline.
- You should submit one pdf file with naming convention: ID1_ID2_ID3_ID4.pdf
- Each TA will post a submission link for his/her groups, so please submit the file to the link of your group

Deadline

- **Thursday 19 December 2024 at 11.59 PM**
- **No late submissions accepted, no apologies so be sure to submit on time and don't wait until the last second**