Systems Analysis and Design

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Teamwork ver.1

Group 8

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Content

1. Describe the project

We often see people requesting assistance on the internet, so we want to provide a platform let everyone get help. This is why we build the Reward Platform System.

There are two kinds of users in the reward platform system, member and staff, both of them can use "Log in" function to verify user's identity, and there are two kinds of members, proposer and recipient, both of them can use "Manage Account" function to manage their own account, and they can use "Report" to report illegal or unreasonable cases.

If user's identity is a proposer, the system will provide Create-Reward-Case, Edit-Reward-Case function. If user's identity is a recipient, the system will provide Select-Reward-Case function. However, if user's identity is a staff, user can use Validate-Reward-Case, Manage-Reward-Case function to manage the reward case, and user can use Manage-Finance to control system's stored value accounts.

In the Create-Reward-Case function, the system will validate the case have illegal words or not ,amount is more than NT$10000 or not and sufficient balance or not, if the case have illegal word, case will be marked of "illegal word". If the amount is more than NT$10,000, case will be marked of "exceed NT$10000". If insufficient balance, the amount will be returned to re-enter. If the case has been marked, it will be sent to the system staff for manual review. If not marked, the reward task will be automatically approved by the system.
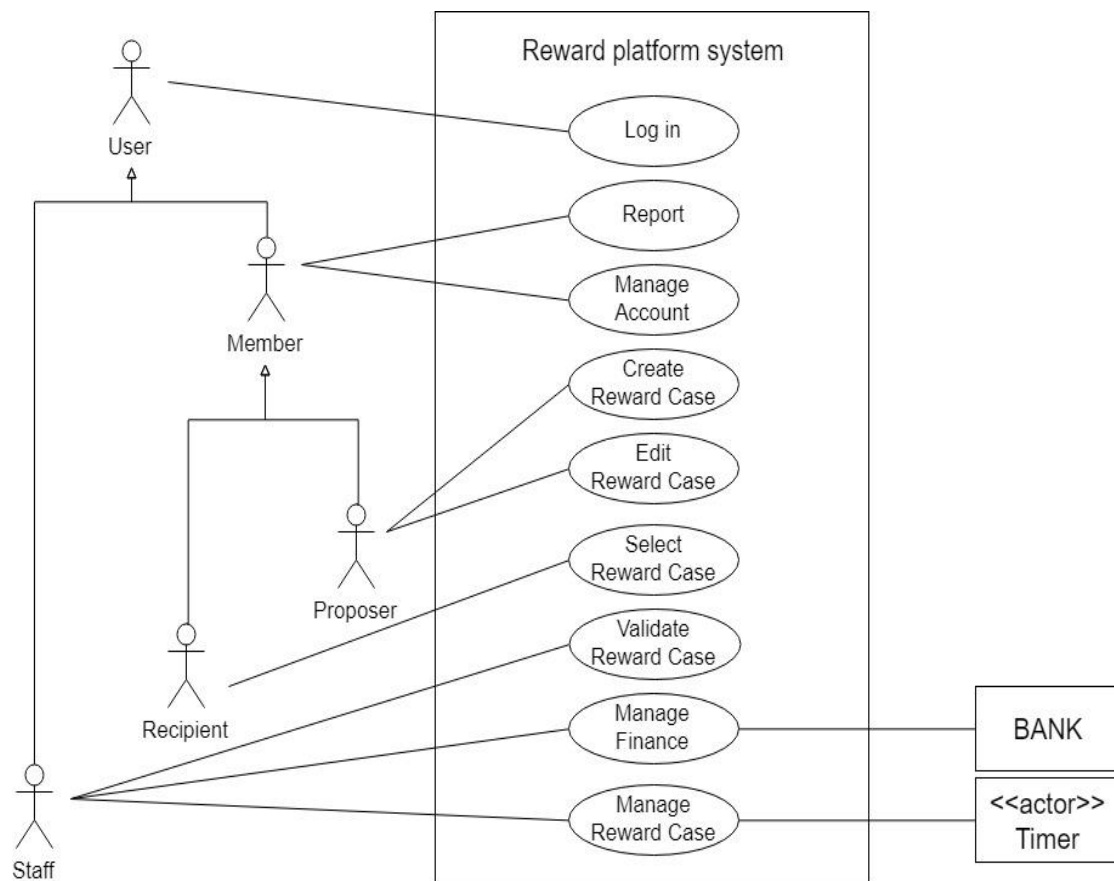
2. Use case diagram

All user can use Log in function, User separate to Staff and Member, then Member separate to Proposer and Recipient.

Proposer and Recipient is a kind of Member, they can use Report and Manage Account function.

Staff can use Validate Reward Case, Manage Finance, and Manage Reward Case function.

Bank provides an finance account that the system can use.

Timer will use Manage Reward Case to delete the reward case, if the reward case was posted more than two weeks.

3. Use case description

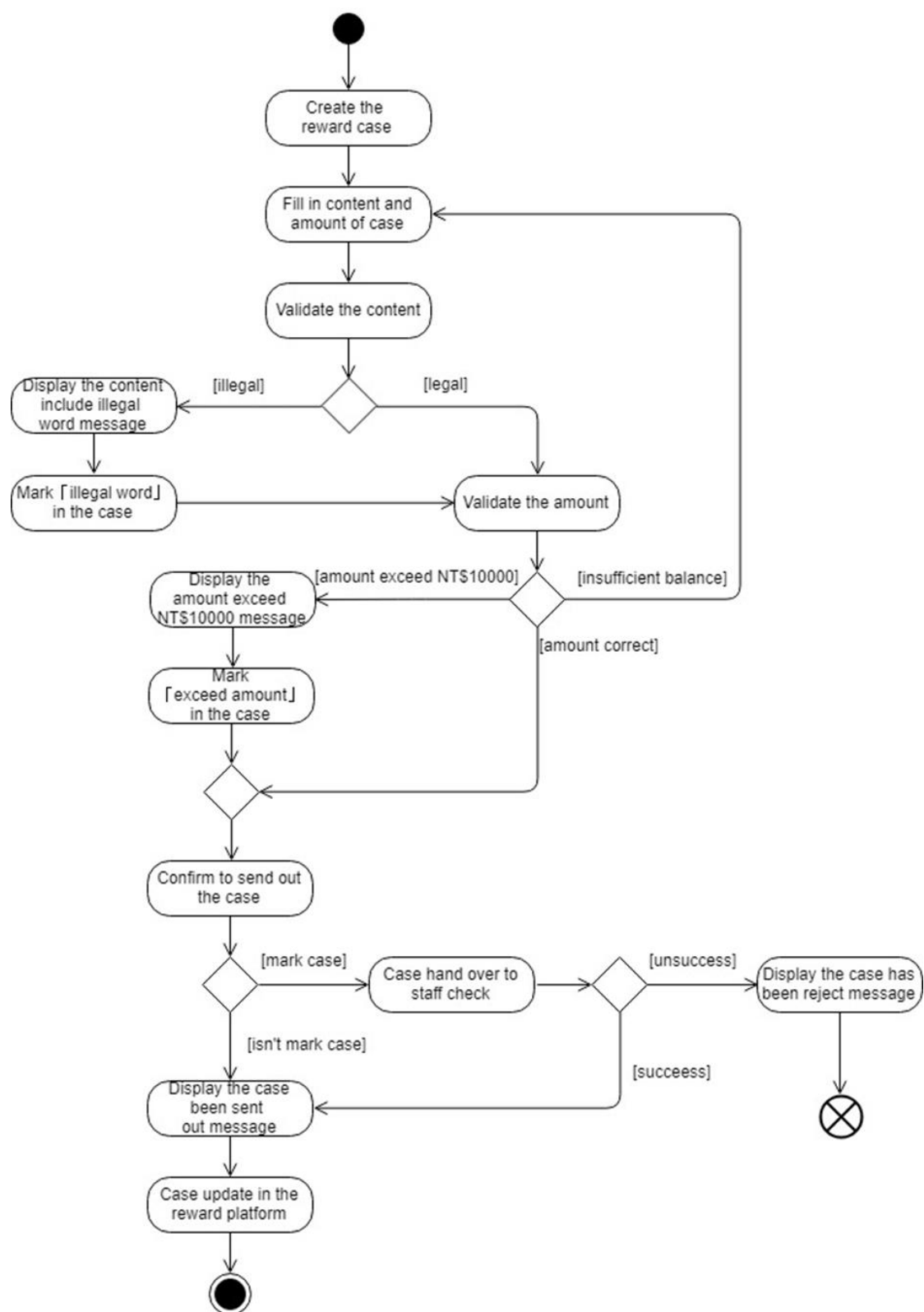| Use Case Name: Create Reward Case	ID:4	Importance Level: High
Primary Actor: Proposer	Use Case Type: Detail, Essential	

Stakeholders and Interests:
      Proposer – wants to create the reward case.
      Staff – Validate reward case is legal or not.		

Brief Description: This use case describes how proposer create reward case.		
Trigger: Proposer create the reward case. Type: External		

Relationships:
           Association: Proposer
           Include:
           Extend:
           Generalization:		

Normal Flow of Events:
      1. The proposer create reward case.
      2. The proposer enter the content and amount of case.
      3. Validate the content and amount of case.
         If the content have illegal word.
           Perform S1.
      4. Validate the amount.
         If insufficient balance.
           Perform S2.
         If the amount exceed NT\$10000.
           Perform S3.
      5. The proposer confirm to send out the case.
         If the case has been marked.
           Perform S4.
      6. Display the message that the case has been sent out.
      7. The case is updated in the reward platform.		

Sub Flows:
      S-1:
      1. Display content include illegal word message.
      2. Mark "illegal word" in the case.
      S-2:
      1. Display insufficient balance message.
      2. Proposer re-enter the amount.
      S-3:
      1. Display amount exceed NT\$10000 message.
      2. Mark "exceed NT\$10000" in the case.
      S-4:
      1. Hand over to staff check.		

Alternate/Exceptional Flows:
      S-4, 1e: If the case didn't pass the staff check, display the case has been rejected message.
      S-4, 2e: The case has been rejected.		

4. Activity diagram

This activity diagram is for the system when the proposer wants to propose a task. the activity plan shows the interaction of activity in the Create reward use case.

The proposer first establishes a reward case and enters the content and amount. The next step is to verify that there are illegal words. If the form contains illegal words, the form is marked to the proposer after entering the illegal word message.

Validate the content of the successful case, and the legal case will verify the amount. If the input amount is greater than the account balance, the amount will be returned to re-enter if the amount is greater than 10,000. If the amount is greater than 10,000, it will display to the proposer that the amount is greater than 10,000 that must be reviewed by the staff and mark the form.

When the amount is entered correctly, then after confirming that the case was sent, if the case is marked, the form is sent to the staff for review. When the review fails, the case has been rejected. If the review is passed, the system will show the proposer the message that the case will be sent out, and the successful and unmarked cases will be update.

5. Sequence diagram

At the beginning
First click to create the case, and then start filling in the contents and the amount of the case to Validation for three verifications.
1. If the content has an illegal character, it will be marked in this case.
2. If the amount exceeds the balance in the account, the case will be re-entered.
3. If the amount exceeds 10,000, it will be treated as a special case and will be marked in this case.

End of verification
If the case is marked, the case will be sent to the staff for manual verification. If there is a problem, the case will be rejected.
If there are no problems, the case was successfully established and uploaded to the platform.
If the case is not marked, the case is successfully established and uploaded to the platform.

6. Class diagram

Proposer wants to add a reward case, content and amount the proposer entered will go through RewardForm. Validation will check the case's content and amount, if one of them didn't verify successful, the case will be marked. If the case has mark, staff will check the case. If the case has no mark, it will be created successfully, and the PlatFormDB will be updated.
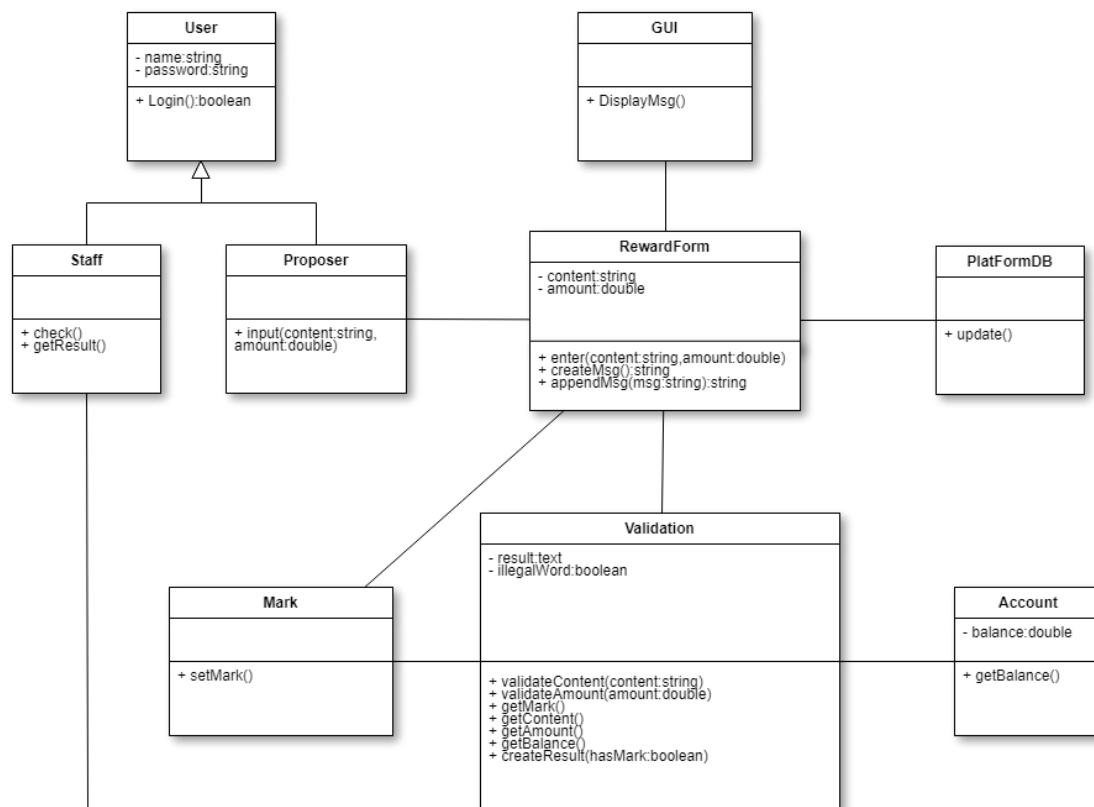
7. Behavior state machine

The behavior state machine is showing how reward form change state. The initial trigger is creating, then after fill in content and amount, the content and the amount will be validated. When the content has illegal text or the amount exceeds 10000, the reward case is marked and sent to the staff for check. If the verification amount shows the balance insufficient, it will return to fill in. When the verification is successful, it will be directly sent and then updated.
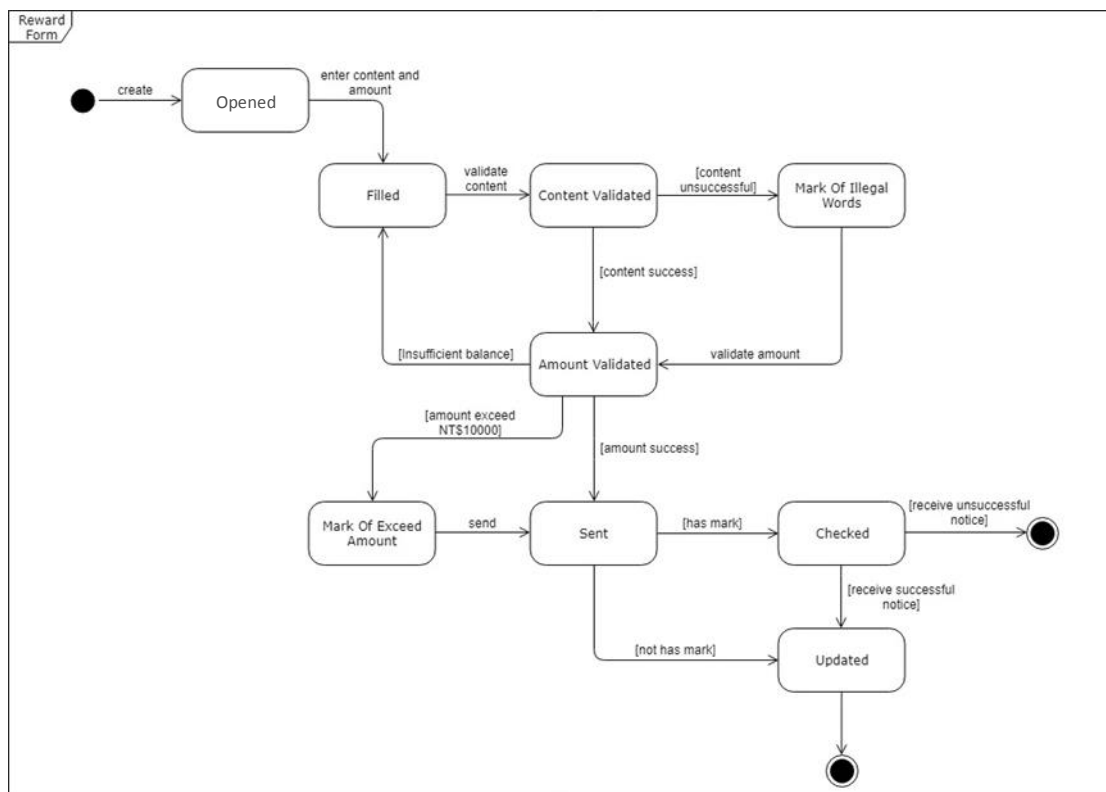
8. Assignments and participation

ID	Name	Participation	Assignments
B10523013	Yvonne	100%	Discuss all diagram Draw behavior state machine
B10523056	Sandy	100%	Discuss all diagram Draw activity diagram
B10423023	Ryan	100%	Discuss all diagram Make use case description
B10423037	Yee	100%	Discuss all diagram Draw sequence diagram
B10523017	Peggy	100%	Discuss all diagram Draw class diagram
B10523006	Peggy	100%	Discuss all diagram Make document
B10423022	William	90%	Discuss all diagram
A10523048	Tony	100%	Discuss all diagram Make document
B10523028	James	85%	Discuss all diagram