

Universidad Distrital Francisco José de Caldas



UNIVERSIDAD DISTRITAL FRANCISCO JOSÉ DE CALDAS

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Software modeling foundations

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Introduction:

This report explains how we tried to solve the problem of making a trivia game based on user stories. The main strategies to solve the problem are based on object-oriented programming and the use of design patterns.

Project Definition:

The business model of our project is to make a quiz game, where users can learn while playing and having fun, adding their own questions to the game to make it more interesting.

Stakeholders:

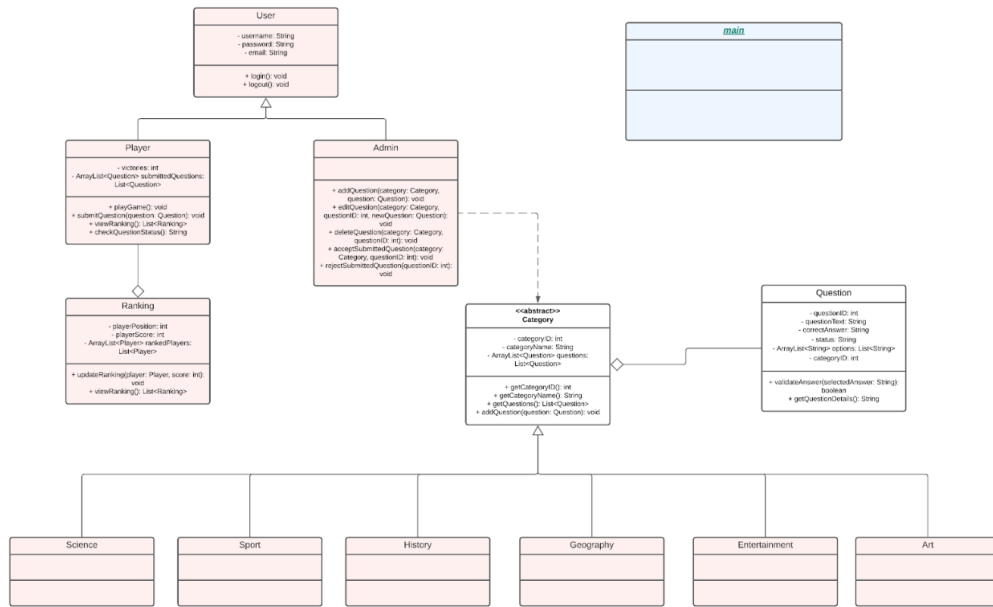
Player: They play and have fun within the program.

Organization: We manage the program, by approving new questions, maintaining the game, etc.

User Stories:

1. As a player, I want to choose a question category (history, science, entertainment, etc.) so I can answer questions on a topic that interests me.
2. As a player, I want to earn rewards for correctly answering several questions in a row, so I can stay motivated and achieve achievements within the game.
3. As a player, I want the game to have a ranking system, so I can compare my performance to other players.
4. As a player, I want to have a limited amount of "wild cards" or hints during the game (50/50, hint, skip question), so I can use them on difficult questions.
5. As a user, I want to be able to give ideas for new questions so I can add topics of interest to the game.
6. As an admin, I want to be able to accept questions suggested by users so I can take them into account within the game.
7. As a player, I want to be able to log in within the game, so I can save my progress.

Class Diagram:

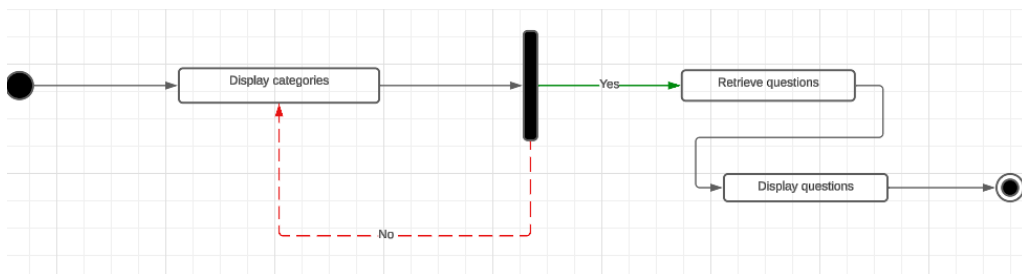


CRC Cards:

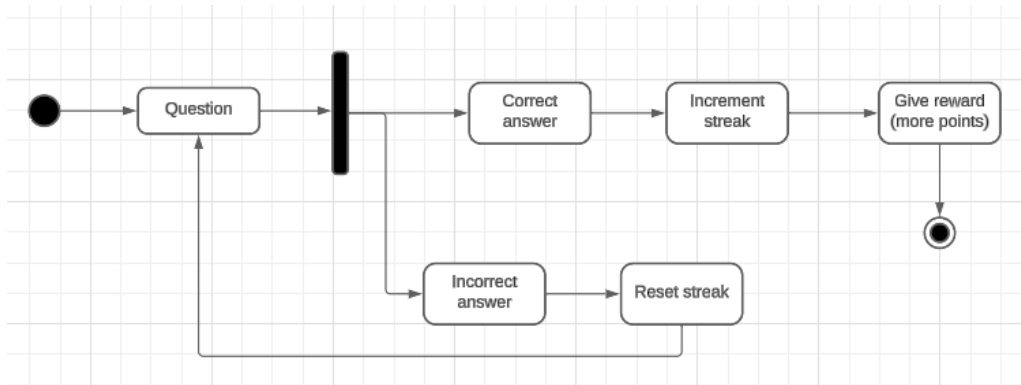
ADMIN CLASS		RANKING CLASS		CATEGORY CLASS		QUESTION CLASS		PLAYER CLASS	
<ul style="list-style-type: none">- Authentication (login, logout)- Play the game- View the ranking- Archive questions- Add questions- Edit questions- Reject suggestions		<ul style="list-style-type: none">- Update scores- Show scores- Save information		<ul style="list-style-type: none">- Show the categories- Provide the questions- Save the new added questions		<ul style="list-style-type: none">- Validate the answer		<ul style="list-style-type: none">- Authentication (login, logout)- Play the game- View the ranking- Suggest questions	
- Ranking	- Category - Question	- Admin - Player		- Admin - Question		- Category		- Ranking	

Activity Diagrams:

1. As a player, I want to choose a question category (history, science, entertainment, etc.) so I can answer questions on a topic that interests me.



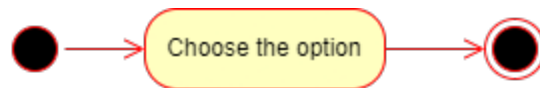
2. As a player, I want to earn rewards for correctly answering several questions in a row, so I can stay motivated and achieve achievements within the game.



3. As a player, I want the game to have a ranking system, so I can compare my performance to other players.



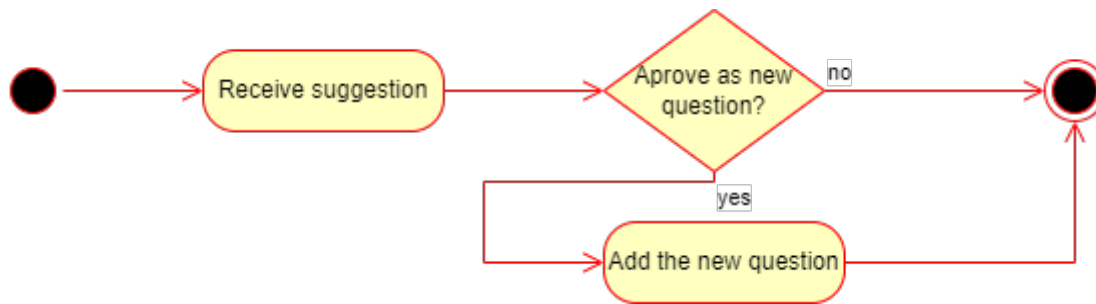
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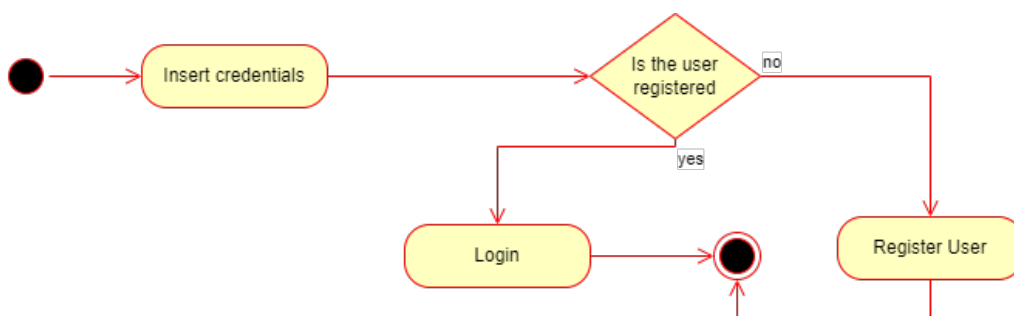
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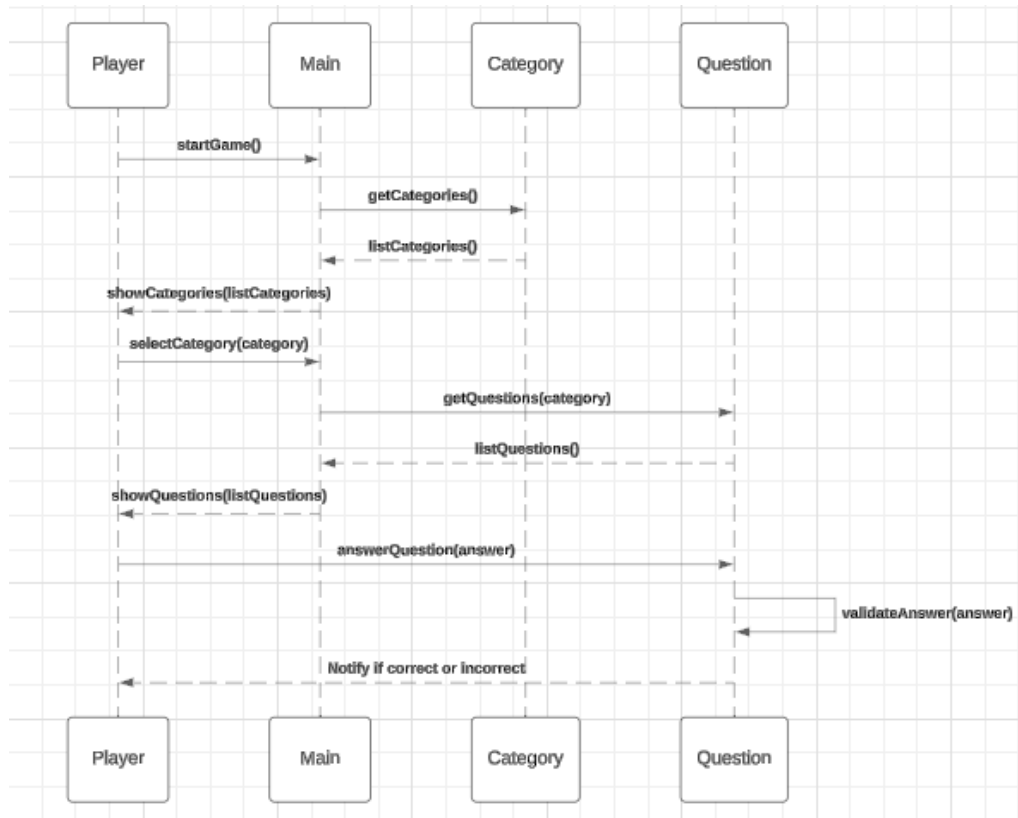


7. As a player, I want to be able to log in within the game, so I can save my progress.

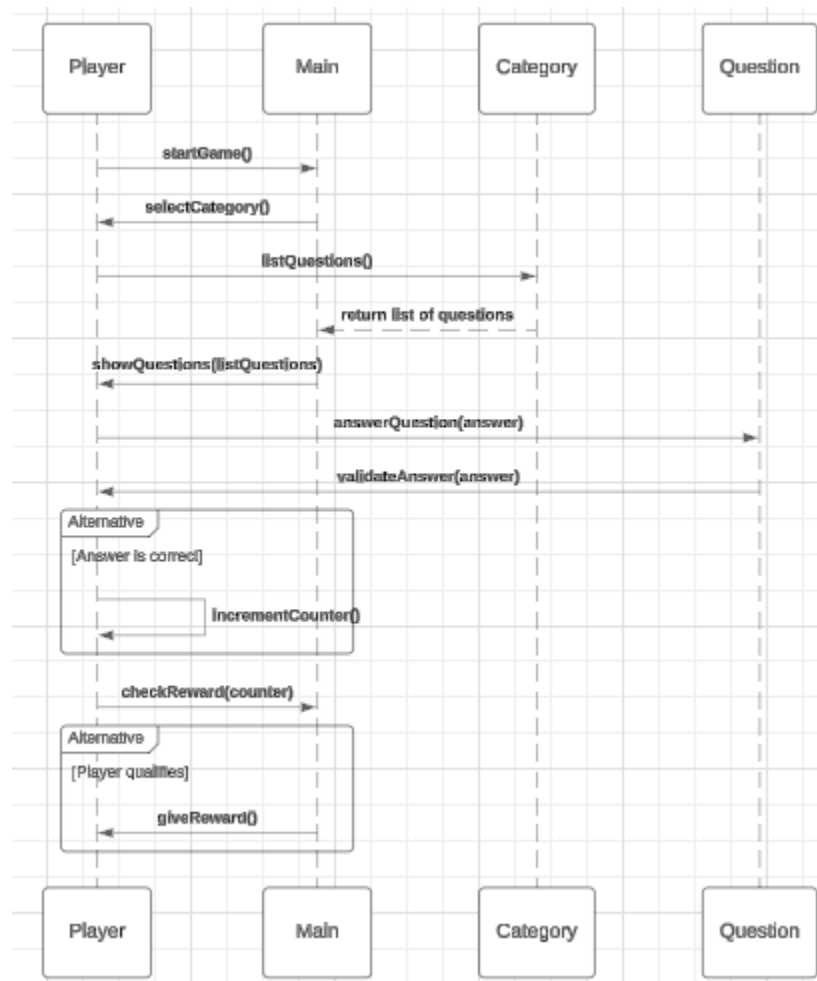


Sequence Diagrams:

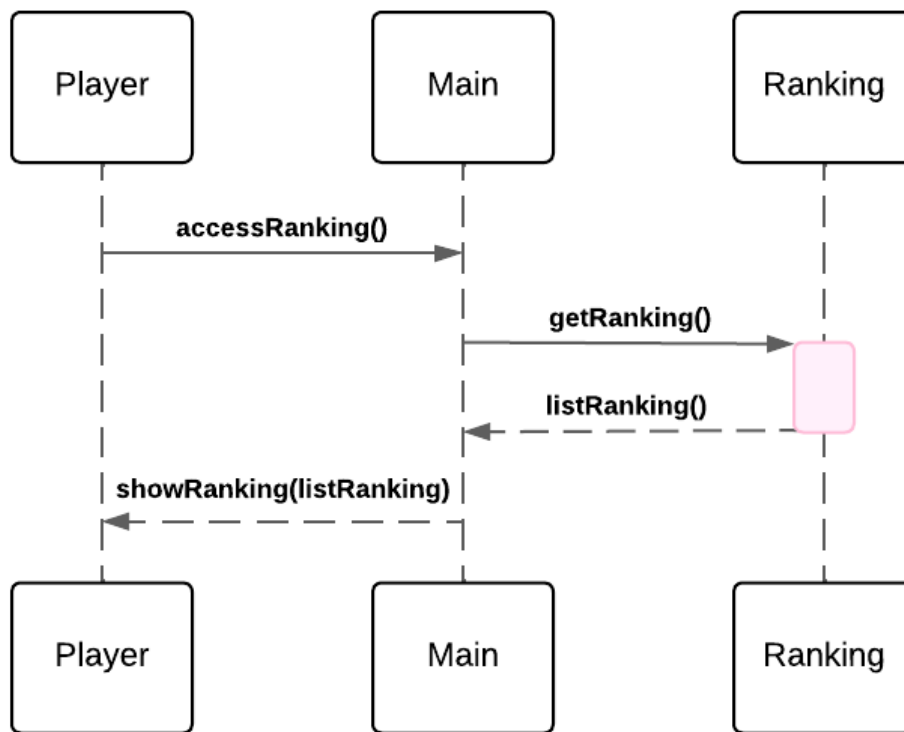
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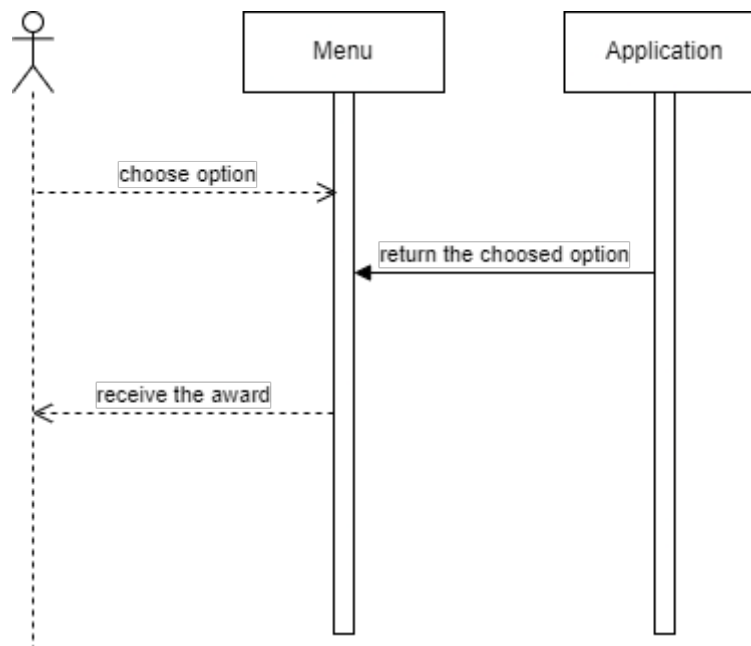
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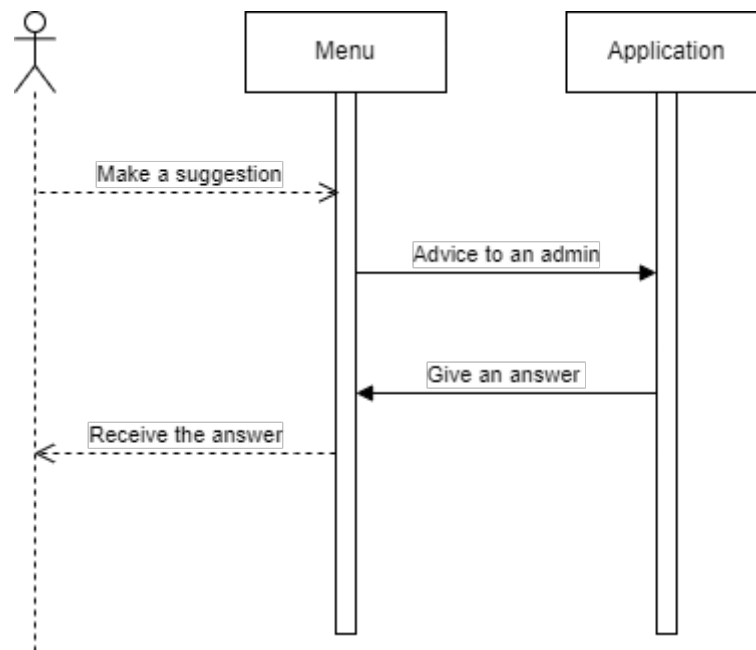
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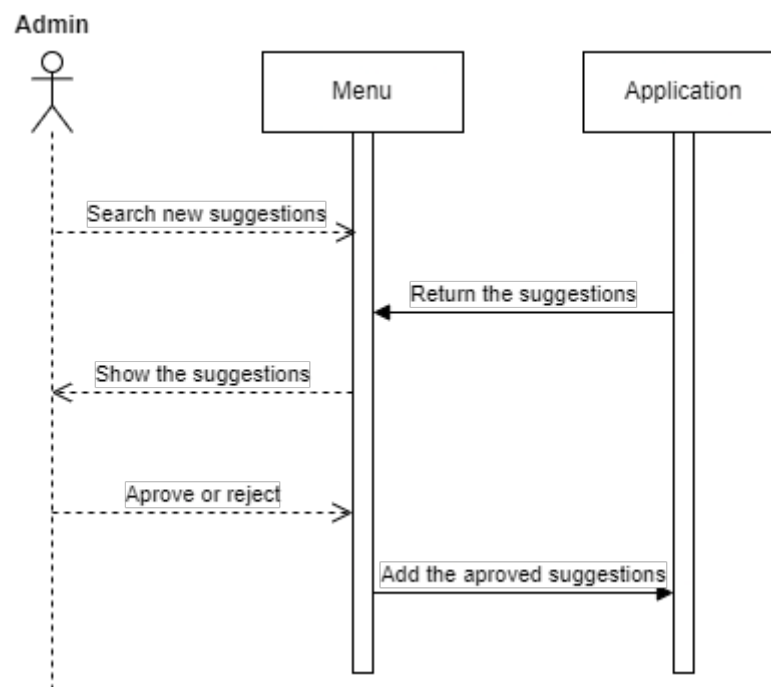
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