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Ministry of Education

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Collage of Computer Engineering and sciences



المملكة العربية السعودية
الجمهورية العربية السورية

وزارة التعليم

جامعة الأمير سطاتم بن عبدالعزيز

كلية الهندسة وعلوم الحاسب

Search subject:
Gmail

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Introduction:

Gmail is a free email service developed by Google. It was first launched in 2004 and has since grown to become one of the most popular email services in the world, with millions of users.

One of the key features of Gmail is its automatic categorization of emails into different tabs, such as Primary, Social, and Promotions. This helps users to easily organize and prioritize their emails. Gmail also has a powerful spam filtering system, which helps to keep unwanted emails out of your inbox.

Another advantage of Gmail is that it offers a large amount of storage space on the cloud, which means you can store a lot of emails and attachments without running out of space on your device. Additionally, you can access your Gmail account from any device with an internet connection.

Problems:

Email notifications: The Gmail app provides notifications for new email messages, helping users to stay on top of their inbox.

Email collaboration: The Gmail app allows users to collaborate on email messages by adding comments or assigning tasks.

Email translation: Gmail provides a translation feature that allows users to translate email messages to other languages.

Integration with other services: The Gmail app integrates with other Google services, such as Google Calendar and Google Drive, making it easy for users to manage their work and pers

Background:

Gmail is a free email service developed by Google. It was first launched in 2004 and was initially available only to a limited number of users through invitation. However, it was later opened to the public in 2007.

Gmail was developed as an alternative to other email services that were available at the time, such as Yahoo! Mail and Hotmail. It was designed to be a more user-friendly and efficient email service, with features such as automatic categorization of emails, spam filtering, and a large amount of storage space on the cloud.

Over the years, Gmail has undergone several updates and improvements, adding new features and functionalities to make it more useful and convenient for users. For example, in 2011, Gmail introduced Priority Inbox, which automatically identifies and highlights important emails based on user behavior.

Gmail is now one of the most popular email services in the world, with millions of users. It is available on multiple platforms, including desktop and mobile devices, and has become an essential tool for communication and productivity for many individuals and businesses.

Proposed solution:

The Gmail application provides several solutions to help users manage their emails efficiently. Some of the solutions provided by the Gmail application include:

Email organization: Gmail automatically sorts emails into different categories, such as Primary, Social, Promotions, and Updates, making it easier for users to find and prioritize important emails.

Spam filtering: Gmail has a powerful spam filtering system that automatically identifies and filters out spam emails, helping to keep your inbox clean and organized.

Large storage space: Gmail provides a large amount of storage space on the cloud, which means you can store a lot of emails and attachments without running out of space on your device.

Work Plan:

Improved email organization: While Gmail's automatic categorization of emails is helpful, some users may want more control over how their emails are organized. One potential addition could be more customizable filters or tags that allow users to group and sort emails in a way that makes sense for their workflow.

Enhanced collaboration features: Gmail is already integrated with other Google services, such as Google Drive, Google Calendar, and Google Meet, but there is always room for improvement. For example, adding real-time collaboration features to emails or allowing users to share and edit documents directly within the email interface could be useful for teams working on projects together.

Expanded automation capabilities: Gmail already has some automation features, such as the ability to set up filters to automatically label or archive emails, but there is potential for more advanced automation. For example, incorporating machine learning algorithms to automatically categorize and prioritize emails based on user behavior could save users time and improve productivity.

Enhanced security and privacy features: With the increasing prevalence of cyber threats, adding more robust security and privacy features to Gmail could be important. For example, incorporating end-to-end encryption for emails or offering more granular control over the visibility of emails could help users to feel more secure when using the service.

Enhanced mobile experience: Many users access Gmail on their mobile devices, so enhancing the mobile experience could be a priority. For example, adding more gesture controls for navigating and managing emails, improving the speed and reliability of the app, and adding more customization options for the mobile interface could all be beneficial. Additionally, incorporating more voice commands or other hands-free options for checking and responding to emails could be helpful for users on-the-go.

8 functional requirements :

Email composition: Users should be able to compose and send emails directly from the app.

Email receiving: Users should be able to receive emails in real-time as they arrive in their inbox.

Email organization: Users should be able to organize emails into folders or labels for easy access and management.

Email search: Users should be able to search for specific emails using keywords, sender, recipient, or other criteria.

Email filtering: Users should be able to set up filters to automatically categorize or route emails based on specific criteria.

Automatic categorization: The app should automatically categorize emails into different tabs, such as Primary, Social, Promotions, and Updates.

Spam filtering: The app should have a robust spam filtering system to prevent unwanted emails from reaching the user's inbox.

Email notifications: Users should receive push notifications for new emails, and be able to customize notification settings.

4 non-functional requirements:

Performance: The app should be fast and responsive, with minimal lag or delay when opening or navigating emails.

Reliability: The app should be reliable, with minimal downtime or disruptions to service.

Security: The app should be secure, with robust measures in place to protect user data and prevent unauthorized access.

Privacy: The app should respect user privacy, with clear and transparent policies regarding data collection and usage.

Actors:

User and technical support

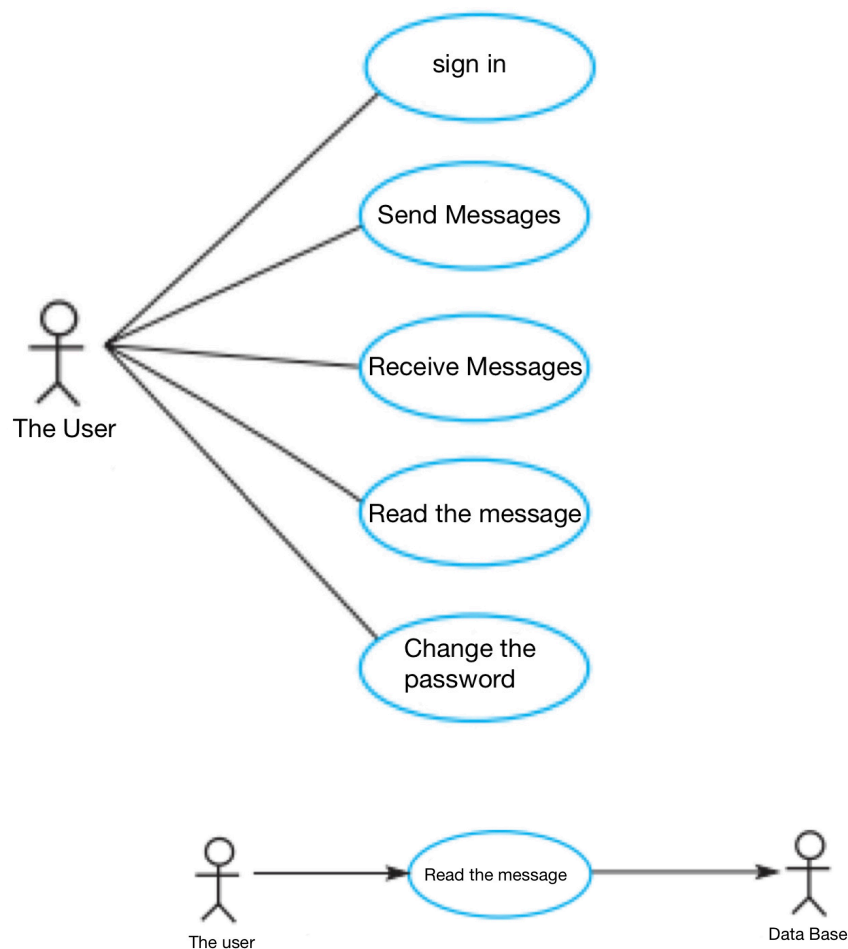


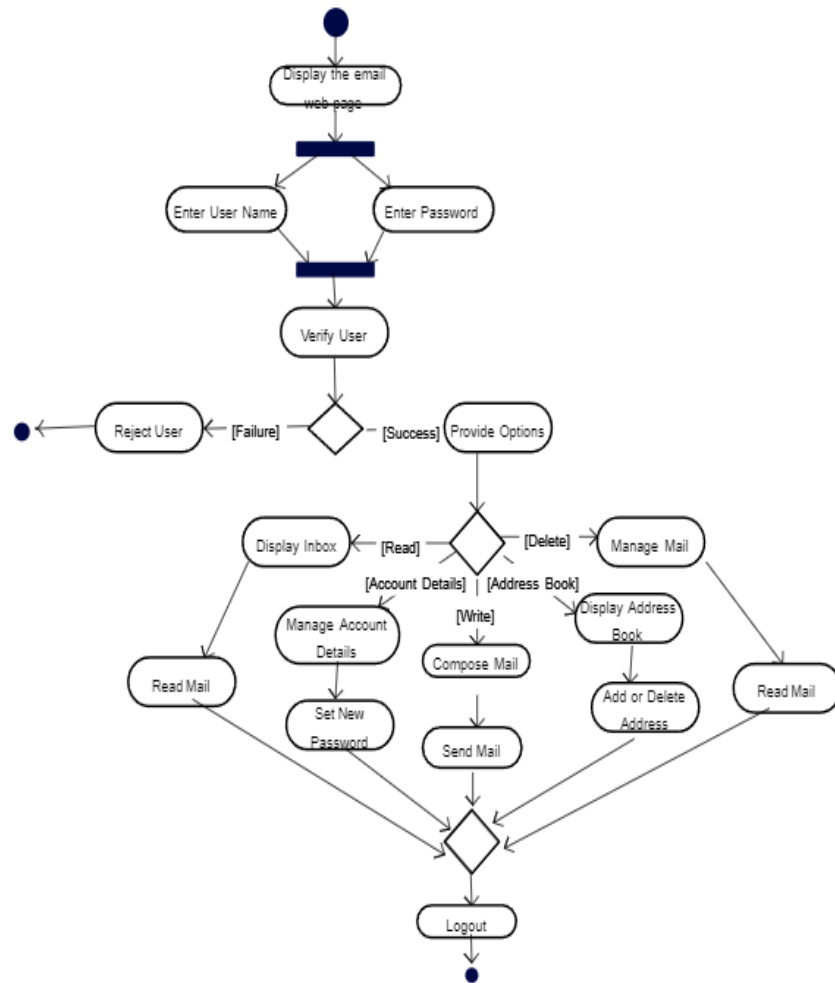
Table 1

Use case Name	sign in
Actors	User
Description	A user wants to create a new Gmail account to have access to Google's services such as Gmail, Google Drive, and Google Calendar.
Data	User's personal information (name, date of birth, gender, phone number)
Stimulus	User visits the Gmail website and clicks on the "Create account" button
Response	Gmail creates a new account for the user and sends a verification email to the provided email address

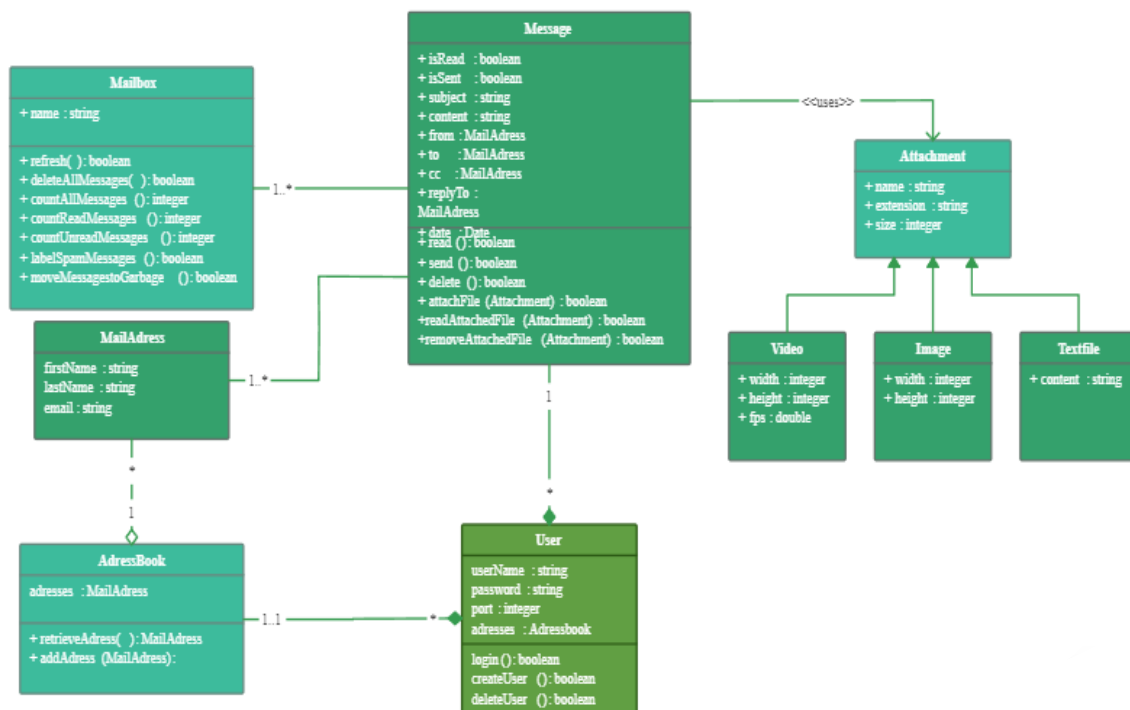
Table 2

Use case Name	Change the password
Actors	User
Description	A user wants to change their Gmail account password for security reasons or to reset a forgotten password.
Data	User's current Gmail account password
Stimulus	User visits the Gmail website and signs in to their account
Response	Gmail prompts the user to enter their current password and their desired new password

Activity diagram:



Class Diagram:



Sequence Diagrams:

