



BAHIRDAR UNIVERSITY

BIT

FACULTY OF COMPUTING

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Mobile Application Individual Assignment

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Submission Date:

15/06/2015

Introduction

The goal of this project is to build a complex Facebook UI using Flutter. The application has different pages including Home, Group, Notification, Messages, Marketplace, Watch Video, and Menu pages. The user interface is built using Flutter's widgets and is designed to be easily customizable and expandable. This report will provide an overview of the project, the design considerations, the development process, and the final product.

Project Setup

To set up the project, i follow these steps:

Create a new Flutter project in my preferred development environment (vs code).

Activate asset dependency, add the intl and switcher_button dependencies to my project's pubspec.yaml file:

dependencies:

intl: ^0.18.0

switcher_button: ^0.0.4

then run flutter pub get to install the dependencies.

Design Considerations

The design of this project is based on the current Facebook application available on and Android devices. The design was adapted to fit the Flutter framework and customized to match the project's requirements. The design was implemented using Flutter's widgets, which provide a wide range of customizable components.

The project was designed to be modular and easily expandable. Each page of the application was designed as a separate module that can be added or removed as needed. The project's structure was organized to allow for easy maintenance and modifications. The application's pages were designed to have a similar look and feel to provide a consistent user experience throughout the application.

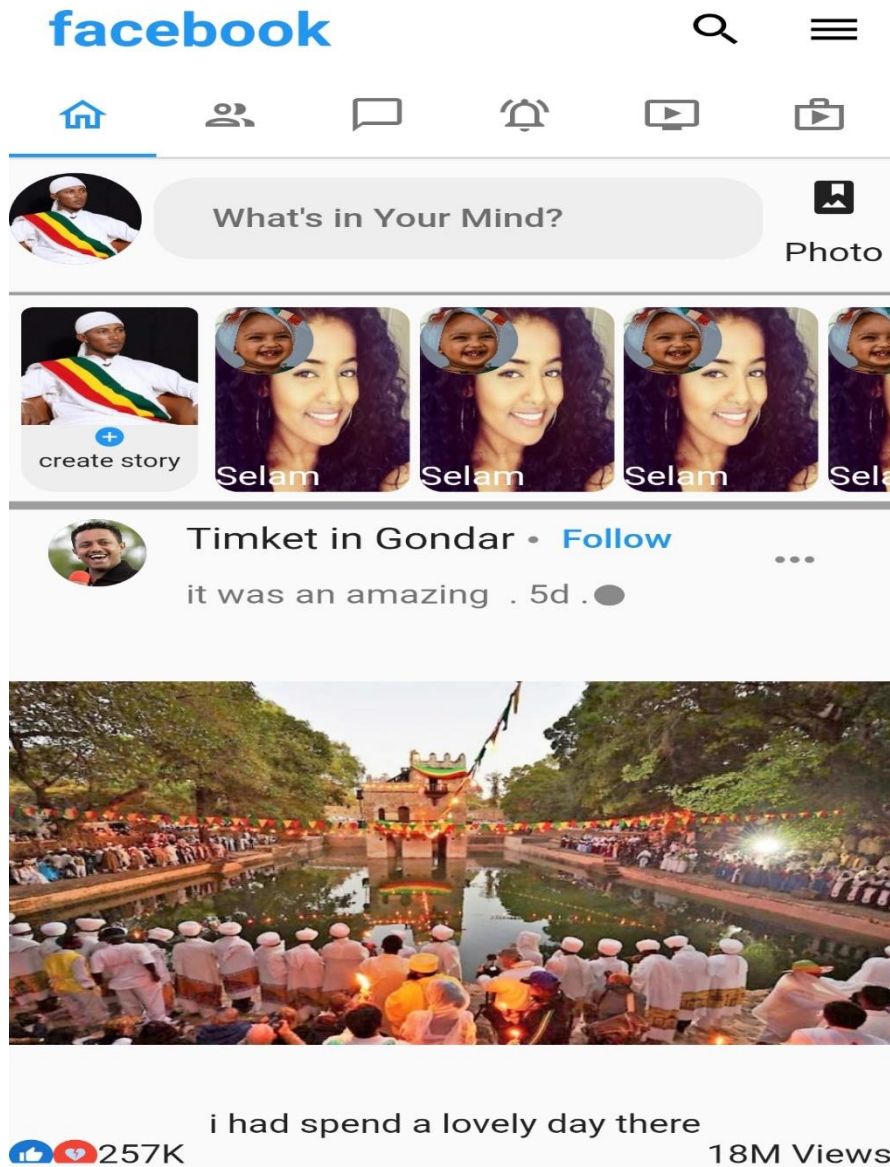
Development Process

The development process started with the creation of the project's structure. The project's structure was organized to allow for easy maintenance and modifications. The application's pages were designed as separate modules that can be added or removed as needed. The modules were developed using Flutter's widgets and implemented according to the design specifications.

The Home page was developed first, followed by the Group page, Notification page, and Messages page. Each page was developed as a separate module and tested before moving on to the next page. The Marketplace page and Watch Video page and menu page were developed later in the process

Homepage

it is the main page that is shown to the users after logging in to their accounts. It is designed to provide a personalized experience to users by displaying relevant content and updates from friends and pages they follow. In this document, we will discuss the layout and features of the Facebook Home Page in detail.



Layout:

this Home Page has a clean and user-friendly layout that consists of different sections. The main sections of the Home Page are as follows:

1. News Feed: The News Feed section is the most prominent part of the Home Page. It is the place where users can see the latest posts and updates from their friends, groups, and pages they follow. The News Feed section shows a mixture of posts, including text, photos, and videos, and is displayed in a chronological order.
2. Stories: The Stories section is located above the News Feed section. It displays short and ephemeral posts that are posted in recent. Users can create their own Stories by uploading photos or videos, applying filters and stickers, and adding text.
3. User Profile: The User Profile section is located in the upper left corner of the Home Page. It displays the user's profile picture, cover photo, and name. By clicking on their profile picture or name, users can access their profile page where they can see their own posts, photos, and other personal information.
4. Explore Tab: The Explore Tab is located in the left sidebar of the Home Page. It allows users to discover new content and pages based on their interests. The Explore Tab shows different categories such as News, Sports, Entertainment, and more.

Message page

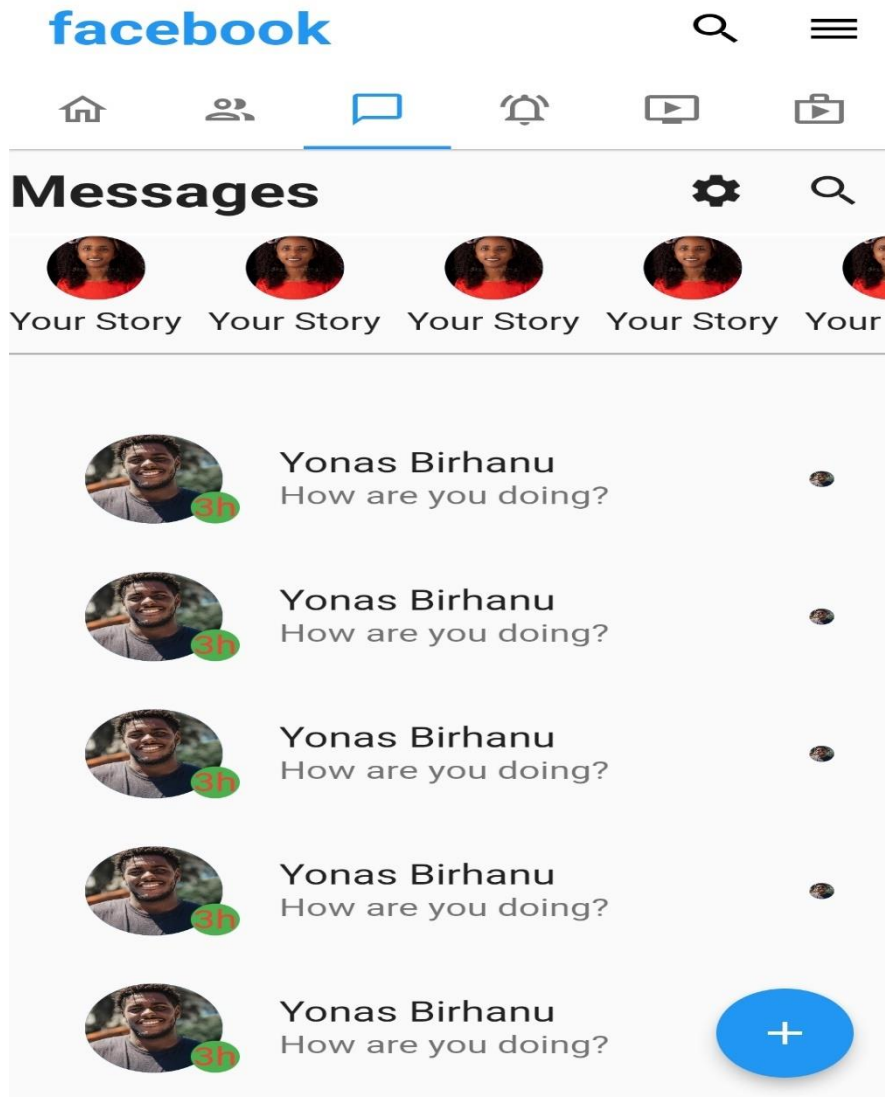
It is a dedicated page that allows users to send and receive messages with their friends and family.

Layout:

The Facebook Message Page has a simple and intuitive layout that consists of different sections. The main sections of the Message Page are as follows:

1. Conversation List: the Conversation List section is located on the left side of the Message Page. It displays a list of recent conversations with your friends and family. Each conversation is represented by the name of the friend or group chat, and the most recent message.

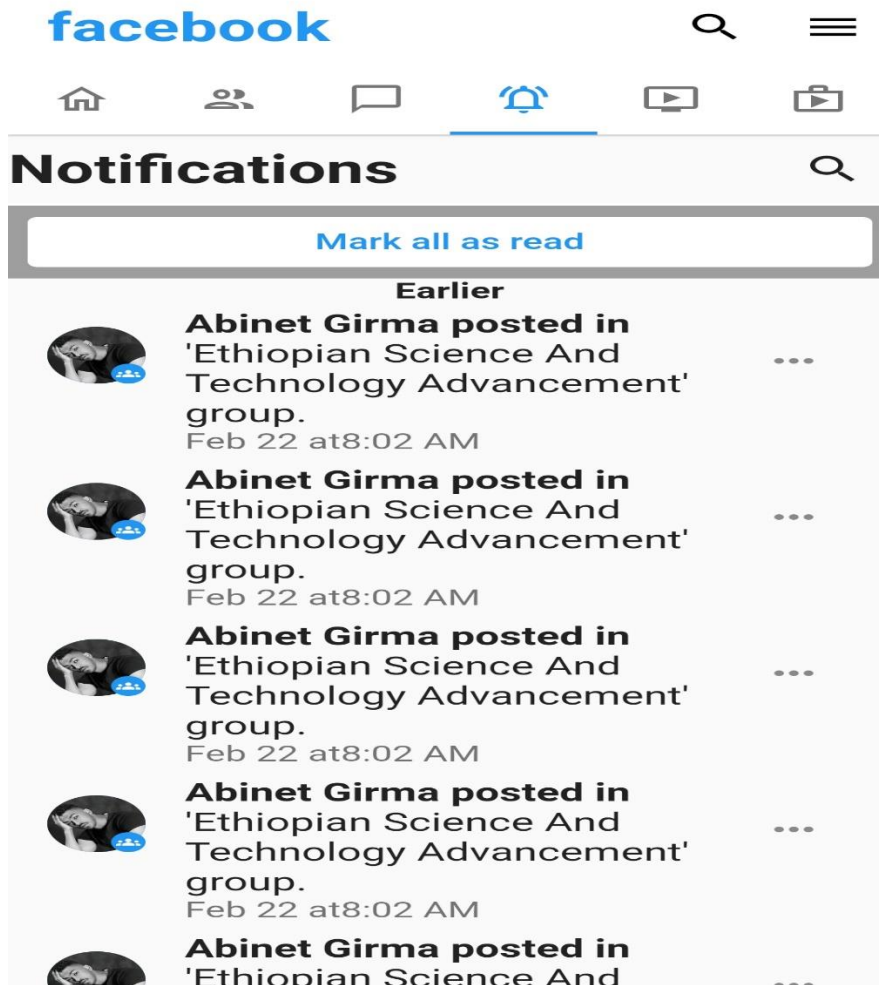
2. Your Story: contains scrollable ‘Your Story’ section and is located at the top of the Message Page. It allows you to share our own story with our friends and family.



Notification Page

this Page is a page that allows users to view and manage their notifications. Notifications on Facebook are an important part of the platform as they keep users informed about the activities of their friends and the content they follow.

Notification List: The Notification List section is located on the left side of the Notification Page. It displays a list of recent notifications from friends and pages. Each notification is represented by a notification icon and a short description of the notification.



Features:

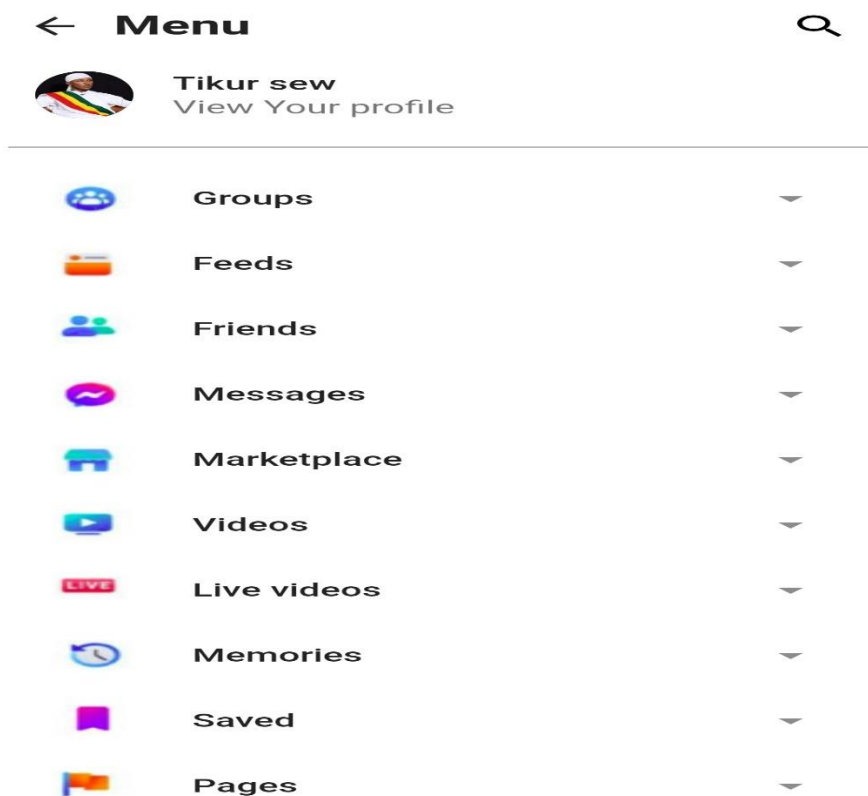
this Page provides a range of features that allow users to manage their notifications. It includes Mark as read option Notification Time and Layouts.

1. **Mark as Read:** The 'mark as read' option is an important feature of the Notification Page. It allows users to mark all their notifications as read with a single click. This feature is useful for users who receive a large number of notifications and want to quickly clear their notification list.
2. **Notification Time and Layouts:** The Notification Page also provides users with the time and layout of their notifications. Users can see the time the notification was sent, and the layout of the notification icon. For example, notifications from friends will have a different icon layout from notifications from pages.

Menu page

it is a page that contains a scrollable list view that allows users to navigate through different sections of the platform with ease. Among different sections of this Page the following are included: groups, feeds, friends, messages, memories, saved, settings, and logout, along with their logos.

1. Groups: The Groups section is represented by a small icon of a group. This section allows users to view and join different groups on the platform. Groups can be based on interests, hobbies, professions, or geographic location.
2. Feeds: The Feeds section is represented by an icon of a newsfeed. This section allows users to view and interact with content posted by their friends and pages they follow. Users can also post their own content on their feeds.
3. Friends: The Friends section is represented by an icon of two people. This section allows users to view and manage their friends list, and also search for new friends.
4. Messages: The Messages section is represented by an icon of a messenger. This section allows users to view and manage their messages with friends and pages.



5. Memories: The Memories section is represented by an icon of a photo album. This section allows users to view and share old memories such as photos, videos, and posts.

6. Saved: The Saved section is represented by an icon of a bookmark. This section allows users to save posts, articles, and other content for later viewing.
7. Settings: The Settings section is represented by an icon of a gear. This section allows users to adjust their account settings, privacy settings, and other preferences.
8. Logout: The Logout section is represented by an icon of a door. This section allows users to log out of their account and end their session.

Project Structure

The project is structured as follows:

main.dart: This is the entry point of the app and contains the FacebookApp widget.

Tabs/: This folder contains the different pages of the app, such as home_page.dart, group_page.dart, notification_page.dart, messages_page.dart, marketplace_page.dart, watch_video_page.dart, and menu_page.dart.

data/: This folder contains reusable widgets that are used across different pages of the app, such as mystory.dart, photodata.dart, lists.dart, contents.dart.

assets/: This folder contains images and other assets used in the app.

Code Overview

The code was structured in a way that makes it easy to understand and modify. Each page of the app was created as a stateful widget, and the different components of the page were created as separate widgets, such as the AppBar, ListView, Container, and Column. The reusable widgets were created as stateless widgets to make them more efficient.

The Final Product

The final product is a complex Facebook UI built using Flutter. The application has different pages, including Home, Group, Notification, Messages, Marketplace, Watch Video, and Menu pages. The user interface is designed to be easily customizable and expandable

The application is designed to provide a consistent user experience throughout the application. Each page of the application is designed as a separate module that can be added or removed as needed. The project's structure is organized to allow for easy maintenance and modifications.

Conclusion

The project demonstrates the capabilities of Flutter in building complex user interfaces. The project was designed to be modular and easily expandable. The final product is a complex Facebook UI that provides a consistent user experience throughout the application. The project's structure is organized to allow for easy maintenance and modifications. The project can be expanded and modified to fit different requirements.