Social Network

Ivane Javakhishvili Tbilisi State University



Faculty of Exact and Natural Sciences Department of Computer Science

Students

Sandro Revazishvili

Supervisor

• Manana Khachidze

Tbilisi 2024

Introduction

Welcome to our groundbreaking social media platform, a vibrant space where connections flourish and moments are shared – introducing our very own Instagram-inspired app! As we embark on this exciting journey, we aim to bring people closer together through a seamless and engaging user experience.

In our Instagram clone, users can effortlessly connect with friends by sending and receiving friend requests, establishing digital bonds that mirror real-life relationships. Once connected, users gain access to an array of features designed to enhance their social interactions.

Navigate through the app to explore detailed profiles, giving you an insight into the lives and interests of your friends. Stay in the loop with the latest updates from your social circle, from captivating posts to captivating stories. With a user-friendly interface, viewing, liking, and commenting on your friends' posts has never been more intuitive.

Unleash your creativity by sharing your own stories and posts, allowing your friends to join you in your daily adventures. React to their content with a variety of expressive emojis and engage in lively conversations through comments and replies.

Goals

Our Instagram clone is designed with a set of ambitious goals aimed at creating a fulfilling and enriching social media experience for our users. Here's a list of our primary goals:

1. Facilitate Genuine Connections:

- Enable users to connect with friends seamlessly by sending and accepting friend requests.
- Cultivate authentic relationships by providing a platform for real-life connections to flourish in the digital realm.

2. Dynamic Content Sharing:

- Empower users to share their daily experiences through captivating stories and posts.
- Foster creativity and self-expression by offering a variety of multimedia content sharing options.

3. Interactive Engagement:

- Enhance user engagement with a feature-rich environment for liking, commenting, and reacting to friends' posts.
- Facilitate lively and meaningful conversations through comments and replies, promoting an interactive community.

4. Notifications for Real-Time Interaction:

- Keep users informed and engaged with a robust notifications system.
- Ensure real-time updates on friend requests, comments, and other interactions, allowing users to stay connected effortlessly.

5. Privacy and Security:

- Prioritize user privacy by implementing robust security measures.
- Provide customizable privacy settings to empower users to control the visibility of their content and interactions.

Tasks

Building an Instagram clone involves various tasks spanning development, design, testing, and deployment

1. Project Planning

- Define project scope, objectives, and deliverables.
- Identify key stakeholders and establish communication channels.
- Create a detailed project timeline with milestones.

2. Market Research

Analyze existing social media platforms for best practices and user expectations

3. Design Phase

- Develop wireframes and prototypes for the user interface.
- Design the app's logo, icons, and overall visual identity.
- Ensure a user-friendly and aesthetically pleasing design.

4. User Authentication and Authorization

- Implement secure user registration and login functionalities.
- Set up a system for user authentication and authorization.

5. Content Sharing

- Develop features for sharing images, videos, and stories.
- Implement a user-friendly content creation and editing interface.

6. Interactive Engagement

- Build features for liking, commenting, and reacting to posts.
- Implement real-time updates for interactive engagement.

7. Direct Messaging

- Create a messaging system for private conversations between friends.
- Implement multimedia sharing within direct messages.

8. Notifications System

- Develop a robust notification system for friend requests, comments, and other interactions.
- Ensure real-time delivery and user-friendly notification management.

9. Privacy Settings

- Implement customizable privacy settings for user profiles and posts.
- Ensure compliance with data protection and privacy regulations.

10. **Security Measures**

- Implement encryption for secure data transmission.
- Conduct security audits to identify and address potential vulnerabilities.

11. Testing

 Conduct thorough testing of all features for functionality, usability, and security.

Project Development Schedule

Week	Month 1	Month 2	Month 3	Month 4
1	Project Planning	Development	UI/UX Development	Refactoring
2	Research	Development	UI/UX Development	Coffe Break
3	Design Phase	Development	UI/UX Development	Testing
4	Design Phase	Testing	Testing	Final Review

Responsibilities

Sandro Revazishvili

Week	Month 2	Month 3	Month 1	Month 4
1	Create Domain Models	Implement Chat Logic	Implement Story Page And Logic	Coffe Break
2	Implement Auth Page And Logic	Implement Chat Logic	Implement Page/Connections Caching	Cleaning Code & Refactoring
3	Implement Chat Page	Database Configuration	Implement Search Page	Testing
4	Implement Chat Page	Testing	Testing	Final Review

Expected Results

The expected results of successfully implementing the tasks outlined for the Instagram clone project are

1. Semi-Functional Instagram Clone

 A semi-operational social media platform mirroring the key features of Instagram, including user profiles, content sharing, engagement, and messaging.

2. Seamless User Experience

 A user-friendly interface that allows for intuitive navigation and an engaging experience for users at every touchpoint within the app.

3. Secure User Authentication and Authorization

 A robust system for user authentication and authorization, ensuring the security of user data and privacy.

4. Content Sharing

 Smooth mechanisms for users to share a variety of content, including images, videos, and stories.

5. Interactive Engagement Features

 Implementation of features that facilitate user engagement, such as liking, commenting, reacting to posts, and real-time updates.

6. Direct Messaging System

 A secure messaging system that enables private conversations sharing between users.

7. Notification System

 An effective and real-time notification system that keeps users informed about friend requests, comments, and other relevant interactions.

How To Run

Front End

Preferable IDE is Visual Studio Code

- 1. npm install -f
- 2. npm start

Application will start automatically

Back End

Preferable IDE is Visual Studio

Nugget restore and build commands will be applied automatically with just one click using Visual Studio

Project Author



- **Name**: Sandro Revazishvili
- **Current Position**: Software Engineer At Epam
- Previous Position: Software Engineer At Credo Bank
- *** Education**: Tbilisi State University
- Skills: .Net, React.js, MSSQL, MongoDb, Design Patterns, Clean Code, Modern Frameworks/Libraries

Sandro Revazishvili CV.pdf