

Project: Secure Vault

Project Tools:

During this section, we will mention the tools we used to build our solution. We will start from the design phase to the final delivery.

I)The application design and UI Mockups:

We will be using Figma, a software for design in general and for mobile/web interfaces specifically. The Software supports "Teams mode" Which helped us work in real life in the project and facilitated the communication.

It has also a wide range of plugins that we used a lot of to make our UI as good as possible.

Here is some of the plugins:

Iconify 2.8 For icons; 3D Illustrations for Illustrations; Freepik for High quality pics; and Google fonts for the fonts used

II)Mobile application itself:

The application is being developed with Flutter 3.19 and Dart language.

Flutter is a framework developed by google to help developers create apps, softwares, and websites for both Android, IOS, and more...

Team Members: Achref Khairi Wael Haji

It's a new trend nowadays in companies and startups since it lowers their cost and helps them build their products in multiple screens and hardwares with the same code base.


We used this opportunity to dig deeper in flutter and learn it.

It's also provides a beginner-friendly environment for new developers since it has a wide kit of UI elements easy to implement.

III) Face ID :

We will use the face-recognition 1.3.0 api for Face ID. It has a wide range of features from Identifying people in picture, to identifying the age of a person, but we will be using the person identity name feature.

Recognize who appears in each photo.



Input

→

Picture contains
"Joe Biden"

Output

```
import face_recognition
known_image = face_recognition.load_image_file("biden.jpg")
unknown_image = face_recognition.load_image_file("unknown.jpg")

biden_encoding = face_recognition.face_encodings(known_image)[0]
unknown_encoding = face_recognition.face_encodings(unknown_image)[0]

results = face_recognition.compare_faces([biden_encoding], unknown_encoding)
```

IV) Account authentication and password systems:

We will be using Firebase which is a cloud-hosted database developed by Google. It will provides both a database and API library for us.

It's suitable for flutter and there is wide range of Features in it.

We can also create a Gmail/Facebook Identification feature using firebase.

V) Password strength checking:

We will be using a customized algorithm that we developed ourselves.

The logic is simple, we will use multiple crieterias that the password should abide by. Based on the crieterias, there will be a score identifying whether the password is strong enough or not.

Project Phases:

I) Project Initiation:

Task 1: Choosing the Topics, IDEas and Project name

Task 2: Market Research and Project analysis:

- Task 2.1 : Understanding the Competitors and The target audience
- Task 2.2 : Mapping the market gap and seeing potential

- Task2.3 : Creating a list of requirements for the project

II) Design Phase:

Task 3: Conduct System architecture using User Experience design approach:

- Task 3.1 : Features map analysis
- Task 3.2 : Creating the user journey map
- Task 3.3 : Crafting the Mobile pages map naming every page (home, sign in...) with features included

Task 4: User Interface Design:

- Task 4.1 : Create wireframes/mockups for the user interface
- Task 4.2 : Incorporate user feedback and refine the designs
- Task 4.3 : Finalize the user interface designs

III) Development Phase:

Task 5: Backend Development (Face ID mode, Linking the Database with the system, linking Firebase with Flutter project)

Task 6: FrontEnd Development (Creating Features and pages: Sign in,sign up, home page,)

Task7: Password strengthen algorithm: Creating the customized algorithm for this feature

Task8: Testing and Bug fixing

IV) Deployment Phase:

Task 9: Deployment Planning

- Task 9.1 : Define deployment environment and requirements
- Task 9.2 : Prepare deployment checklist

Task 10: System Deployment

Task 11: User Documentation

- Task 11.1 : Create User documentation and Guide