

Data Collection and Display

-- Language App

Using Cross-Platform Apps for Enhanced Learning

HIT238 Assessment 1



OVERVIEW OF THE PROJECT:



BRIEFLY INTRODUCE THE PROJECT'S AIM AND ITS IMPORTANCE IN LANGUAGE LEARNING.

HIGHLIGHT THE KEY FUNCTIONALITIES OF THE LANGUAGE APP.

KEY REQUIREMENTS:

Add and Record Sentences:

- Allow users to add a sentence in text.
- Record the sentence and save the recording online with the name of the sentence.

Teacher and Student Roles:

- Teachers record material for students.
- Students can practice sentences and play games based on the sentences.

Storage:

- Initial storage in a JSON file.
- Future storage on Firebase.



TYPES OF MOBILE APPLICATIONS:

Cross-Platform Apps

Advantages:

- One codebase to manage.
- Reasonable cost.
- Acceptable performance close to native apps.

Business Justification:

- Cost and timeframe efficiency.
- Difficulty finding native developers.
- Suitable for apps not requiring high-level precision.



DESIGN CONSIDERATIONS

UI/UX Design:

- Importance of a responsive and intuitive interface.
- Examples of good UI/UX practices for language learning apps.

Functional Requirements:

- Integrating recording and playback features.
- Enabling sentence-based games for learning reinforcement.

TECHNOLOGY STACK

Programming Languages:

- JavaScript/Dart for Cross-platform development.
- Tools and frameworks (Flutter).

Database and Storage:

- Initial storage in JSON file.
- Future storage on Firebase.



CHALLENGES AND SOLUTIONS

Potential Challenges:

- Handling cross-platform compatibility issues.
- Ensuring performance optimization.
- Managing user data securely.

Proposed Solutions:

- Regular testing across devices.
- Optimizing code and using efficient libraries.
- Implementing robust security measures.

CONCLUSION

Summary:

- Recap the importance of the language app project.
- Emphasize the benefits of using cross-platform development.

Future Work:

- Possible enhancements and new features.
- Long-term maintenance and updates.

