

| Week | Task Description | Responsibilities | Deliverables |
|------|---|---|--|
| 1 | Project Setup and Planning | <ul style="list-style-type: none"> - Define project goals and objectives - Set up version control (Git) - Create initial project structure in Android Studio - Outline GCP services needed for compute, storage, and database | <ul style="list-style-type: none"> - Project plan document - Git repository initialized - Initial cloud architecture diagram |
| | UI/UX Design | <ul style="list-style-type: none"> - Design wireframes and mockups in Figma - Finalize UI elements based on the app's main feature (AI outfit recommendation) | <ul style="list-style-type: none"> - Completed Figma designs - Design approval from the team |
| 2 | Development Setup and GCP Configuration | <ul style="list-style-type: none"> - Set up Android Studio environment - Integrate necessary libraries (Retrofit, TensorFlow Lite) - Configure GCP services for compute (App Engine, Cloud Functions, or VM), storage (Cloud Storage), and database (Firestore or Cloud SQL) - Assign GCP access permissions to the Cloud Computing team only - Use Google Cloud Pricing Calculator to estimate costs | <ul style="list-style-type: none"> - Development environment ready - Libraries integrated - GCP project configuration with minimum cost estimate |
| | Core Feature Development | <ul style="list-style-type: none"> - Develop XML layouts based on Figma designs - Create basic navigation and activity structure - Add app icon to make the app visually distinct | <ul style="list-style-type: none"> - Initial app layout and navigation structure completed - Custom app icon added |
| 3 | Backend and API Integration | <ul style="list-style-type: none"> - Develop REST API for data management using GCP (e.g., Cloud Functions or App Engine) - Implement Retrofit in the app for API calls - Create networking calls to interact with the API | <ul style="list-style-type: none"> - Functional API calls established - Data fetching implemented |
| | ML Model Development and Integration | <ul style="list-style-type: none"> - Build and train a custom TensorFlow model on Google Cloud (not using TensorFlow Hub or AutoML) - Use TensorFlow Lite to convert and integrate the model into the app - Implement the ML model on-device to recommend outfits based on user preferences - Ensure that the AI workflow is the app's main feature, allowing users easy access to the recommendation functionality | <ul style="list-style-type: none"> - Custom-trained ML model converted to TensorFlow Lite - On-device model for outfit recommendations - Basic workflow for AI feature access |
| 4 | Testing, Debugging, and Documentation | <ul style="list-style-type: none"> - Conduct unit testing and user testing to ensure the app's main features (including AI/ML functionality) are stable and meet project goals - Debug and fix identified issues - Create documentation, including app instructions, usage of GCP, and AI/ML workflow | <ul style="list-style-type: none"> - Test reports - Debugged app ready for deployment - User and technical documentation |
| | Finalization and APK Release | <ul style="list-style-type: none"> - Optimize and finalize app - Generate APK for release - Prepare a final project report - Present project outcomes and key insights | <ul style="list-style-type: none"> - Downloadable APK file - Final project report - Project presentation with outcomes |