**Phase 1: Planning & Architecture (Week 1)**

**Goal:** Define tech stack, architecture, and initial design.

✅ **Tasks:**

* Finalize **tech stack** (Flutter/React Native, FastAPI, Firebase, TensorFlow, OpenCV).
* Set up **project repositories** (GitHub/GitLab, CI/CD pipelines).
* Define **database schema** (Firestore/DynamoDB for wardrobe metadata, Firebase S3 for images).
* Create **wireframes & UI mockups** (using Figma/Adobe XD).
* Set up **development environments** (local & cloud setup for backend).

🛠 **Deliverables:**

* Architecture documentation.
* Database schema & API structure.
* Basic UI wireframes.

**📌 Sprint 1: Authentication & Wardrobe Upload (Weeks 2-3)**

**Goal:** Implement user authentication and allow users to upload wardrobe items.

✅ **Tasks:**

* Implement **Firebase Authentication** (Google, Apple, Email).
* Build **Login & Signup Screens**.
* Develop **Home Screen** UI.
* Implement **Camera & Gallery Upload** functionality.
* Create **basic AI model integration** for detecting clothing types.
* Store images in **Firebase Storage/AWS S3**.
* Save wardrobe metadata in **Firestore/DynamoDB**.

🛠 **Deliverables:**

* Functional **login/signup system**.
* Users can **capture & upload wardrobe photos**.
* AI detects **clothing categories** (e.g., shirts, pants, shoes).

**📌 Sprint 2: Wardrobe Management & Outfit Suggestions (Weeks 4-5)**

**Goal:** Organize wardrobe items and generate outfit recommendations.

✅ **Tasks:**

* Implement **Wardrobe Closet UI** (grid/list view).
* Allow **manual tagging & categorization** of clothing.
* Enable **search & filtering** (type, color, occasion).
* Develop **basic AI-powered outfit recommendation engine**.
* Integrate **occasion-based styling options**.

🛠 **Deliverables:**

* Functional **wardrobe closet** with search & filter options.
* AI-powered **basic outfit suggestions**.
* Users can tag **clothes as casual, formal, winter, etc.**.

**📌 Sprint 3: Smart Styling & Personalization (Weeks 6-7)**

**Goal:** Improve recommendations and user customization.

✅ **Tasks:**

* Enhance **AI-based color matching & styling rules**.
* Introduce **favorite outfits & saved combinations**.
* Implement **user preferences & style settings**.
* Integrate **weather-based outfit recommendations**.
* Improve **AI accuracy with machine learning refinements**.

🛠 **Deliverables:**

* AI suggests **better-matched outfits**.
* Users can **set style preferences** (Streetwear, Business, etc.).
* Basic **weather-based outfit recommendations**.

**📌 Sprint 4: UI Enhancements, Testing & Deployment (Weeks 8-9)**

**Goal:** Improve UI, fix bugs, and prepare for beta launch.

✅ **Tasks:**

* **Refine UI/UX** with animations and smooth transitions.
* **Optimize image processing** for better AI accuracy.
* Conduct **user testing & feedback collection**.
* Fix **bugs & performance issues**.
* Deploy **beta version on Google Play Store & Apple App Store**.

🛠 **Deliverables:**

* Smooth UI & better AI results.
* **Beta launch** for early testers.

**📌 Post-MVP Enhancements (Weeks 10-12)**

🚀 **Future Features:**

* **AR-based try-on** (Augmented Reality dressing).
* **AI chatbot stylist** (personalized recommendations).
* **E-commerce integration** (shop recommended styles).
* **Outfit calendar planning**.

**⏳ Summary Timeline**

| **Sprint** | **Focus** | **Duration** |
| --- | --- | --- |
| **Planning** | Architecture, Database, Wireframes | **Week 1** |
| **Sprint 1** | Authentication & Wardrobe Upload | **Weeks 2-3** |
| **Sprint 2** | Wardrobe Organization & Outfit Suggestions | **Weeks 4-5** |
| **Sprint 3** | Styling Personalization & AI Enhancements | **Weeks 6-7** |
| **Sprint 4** | UI Refinement, Testing, Beta Launch | **Weeks 8-9** |
| **Post-MVP** | Advanced AI, AR Try-On, E-commerce | **Weeks 10-12** |

**🚀 Next Steps**

Would you like:

1. **A task breakdown per sprint for better tracking?**
2. **A Trello/JIRA board setup recommendation for task management?**
3. **A list of required APIs & endpoints?**