Project Report Template

Title of Project: AI powered phone builder
Name of the Innovator: Shinu P S
Start Date: 13-10-2025
End Date: 17-10-2025

Day 1: Empathise & Define

Step 1: Understanding the Need

- Which problem am I trying to solve?

The problem I am trying to solve is the difficulty where customers face when shopping for a smartphone that truly fits their personal preferences and needs. Most available phones come in fixed, standard models that lack customization options for features, design, or specifications. Customers often struggle to find the right phone that matches their style and functional requirements without spending excessive time researching or compromising on key aspects.

Step 2: What is the problem?

The problem is limited smartphone customization, forcing users to choose preset models that may not fit their needs or budgets. This causes dissatisfaction and waste. The Custom Phone Builder lets users personalize components, balancing features and cost while managing compatibility and pricing.

Why is this problem important to solve?

The problem of limited smartphone customization is important to solve because it allows users to get devices tailored to their specific needs, improving satisfaction. It also helps reduce electronic waste by preventing unwanted features and promotes better purchasing decisions through transparency. Overall, it supports a more sustainable and user-focused technology market.

Take-home task

Ask 2-3 people what they think about the project:

Customer:
I find the Custom Phone Builder very appealing because it lets me design a phone with the exact features I want without paying for unnecessary extras. It would be convenient to tailor my phone to my usage, budget, and style.

Mobile Seller:
This project is innovative and could attract customers looking for personalized devices. Offering custom phones could differentiate us in a competitive market and build customer loyalty by meeting specific needs.

Investor:
The Custom Phone Builder concept has significant market potential, especially with rising demand for personalized technology. If executed well, it could disrupt traditional smartphone sales and create a loyal customer base, making it a promising investment.

AI Tools you can use for Step 1 and 2:

AI Tools Used:

1. Meta MGX

- **Used as a no-code development tool to design and deploy the *custom mobile builder*.**
- **It helps create interactive workflows, user interfaces, and logic without programming.**
- **Ideal for building features like Component Selection, User-Friendly Interface, Sustainability Focus**
- **2. ChatGPT**
- **Used for idea generation, content structuring, and chatbot conversation design.**
- **Helped in framing the AI-powered virtual assistant's responses for guiding users.**
- **Also useful for generating spec recommendation, FAQs, and improving user interaction flow.**

Day 2: Ideate

Step 3: Brainstorming solutions

1. ***Modular Component Design:*** *Develop phones with easily swappable parts, allowing users to upgrade or customize hardware like cameras, batteries, or processors without replacing the entire phone.*
2. ***AI-Powered Recommendation System:*** *Integrate AI to suggest compatible and optimized phone configurations based on user preferences, budget, and usage patterns, simplifying the customization process.*
3. ***Augmented Reality (AR) Preview:*** *Implement AR technology to let users visualize their custom phone's look, size, and features in real life before making a purchase decision.*
4. ***Sustainability Incentives:*** *Offer trade-in or recycling programs alongside custom builds to encourage eco-friendly practices and reduce electronic waste.*
5. ***Collaborative Customization Platform:*** *Enable users to share their custom designs and configurations with a community for feedback, ratings, and social engagement, fostering a user-driven innovation ecosystem.*

Step 4: My favourite solution:

My favourite solution is the best solution is the AI-Powered Recommendation System because it simplifies the customization process by guiding users to select compatible and optimal components based on their needs and budget. This enhances user experience, reduces decision fatigue, and increases the likelihood of customer satisfaction.

Step 5: Why am I choosing this solution?

The AI-Powered Recommendation System is ideal because it offers personalized, real-time suggestions tailored to user preferences and budget. This reduces decision fatigue and helps customers easily choose compatible components. As a result, it improves satisfaction, engagement, and sales while adapting dynamically to changing user behavior.

AI Tools you can use for Step 3-5:

AI Tools for Step 3–5

1. Meta MGX

- Used to **design and build the Custom phone builder app** without coding.
- Helps develop a personalized AI assistant, skill modules, and location-based features tailored for smartphone customization

2. ChatGPT

- Helps **brainstorm solutions** and generate ideas for career guidance features.
- Can **structure conversations** for the AI virtual assistant.
- Assists in creating content for customization guides, FAQs, and personalized product recommendations to enhance user understanding and support.

3. AI Chatbot References (for design and flow)

- **Dialog flow** – Understands user intent and conversation flow.
- **IBM Watson Assistant** – Helps design structured Q&A for personalized guidance.
- **Microsoft Bot Framework** – Shows how to connect user inputs with recommendations and actions.

4. AI Research Tools

- **Google Scholar / Research AI** – For exploring existing solutions and innovative ideas for Steps 3–5.
- **AI Text & Summarization Tools** – Helps summarize solutions, select the best approach, and present them clearly.

AI Tools you can use for the take-home task:

Canva AI/CoPilot AI/Meta AI: Use these mobile-based tools to generate images for the solution they want to design

Day 3: Prototype & Test

Step 6: Prototype – Building my first version

What will my solution look like?

- **Home page: Intro and start customization.**
- **Component selection: Choose CPU, RAM, battery, camera, color.**
- **AI recommendation system: Suggests components based on user needs (e.g., gaming, photography, productivity).**
- **3D visualization: Live phone preview.**
- **Order summary screen: Displays cost breakdown and shipping estimate.**

Design Style:

- Simple, intuitive, and easy to navigate for rural youth.
- Bright and engaging visuals to make learning and exploration fun.
- Mobile-friendly layout for easy access on smartphones.

Prototype Tools:

- Built using **Meta MGX**, no coding required, with all features **interactive and testable**.

What AI tools will I need to build this?

AI Tools Needed to Build custom phone builder

1. **Meta MGX**
    - No-code platform to **design and deploy the app**.
    - Allows building **interactive screens, chat interfaces, and skill modules** without coding.
2. **ChatGPT**

    Helped plan how users can pick phone parts step-by-step in the app.

    Suggested useful features like recommending parts based on user needs (gaming, battery, camera).

    Wrote clear and simple instructions for users to build their own phones easily.
3. **AI Chatbot Design References**
    - **Google Dialogflow / IBM Watson Assistant / Microsoft Bot Framework**
    - To **structure conversation logic** and handle user queries effectively.
4. **AI Recommendation Tools** *(Optional but useful)*
    - For **matching students with careers, scholarships, and nearby opportunities**.
    - Could use **ML-based ranking algorithms** or **existing AI APIs** for personalization.
5. **AI Data Analysis Tools** *(Optional for insights)*
    - **Python AI libraries (Pandas, Scikit-learn)** or **AI analytics platforms**
    - To analyze user interactions and improve recommendations over time.

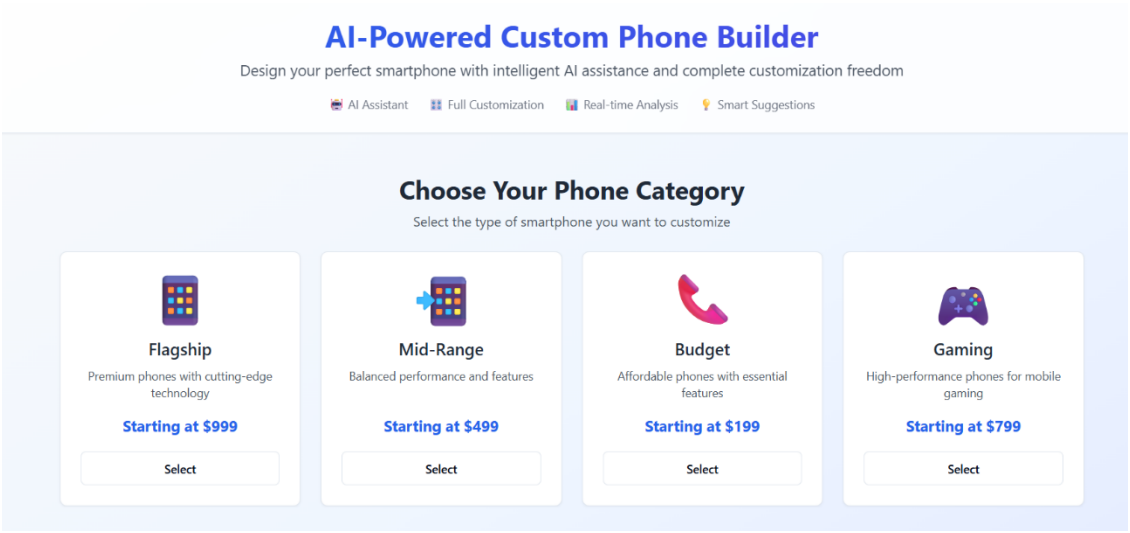
What AI tools I finally selected to build this solution?

1. **Chat GPT**
2. **Metamgx**

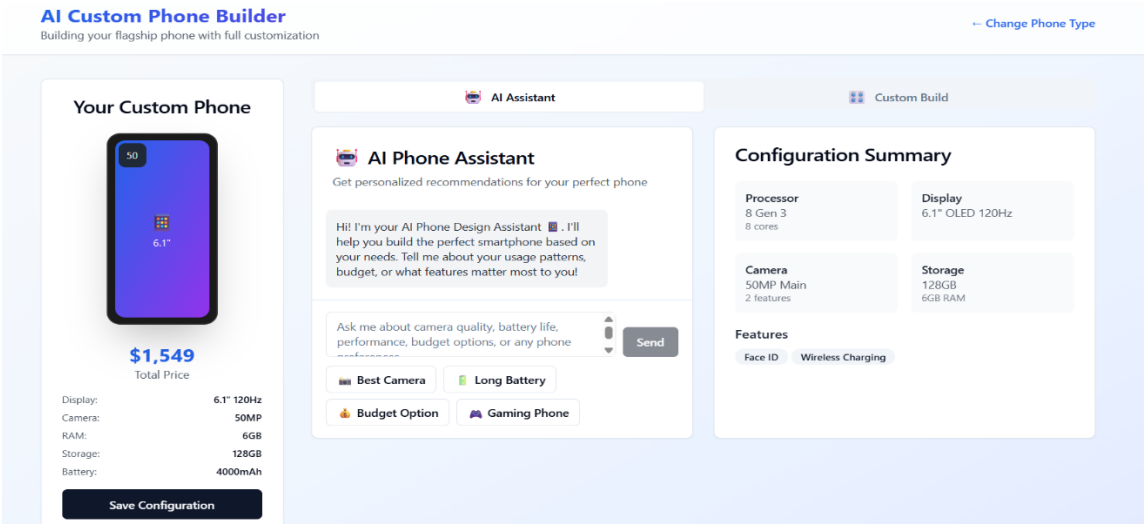
< Build The Innovation>

<DASHBOAD OF THE TOOL>

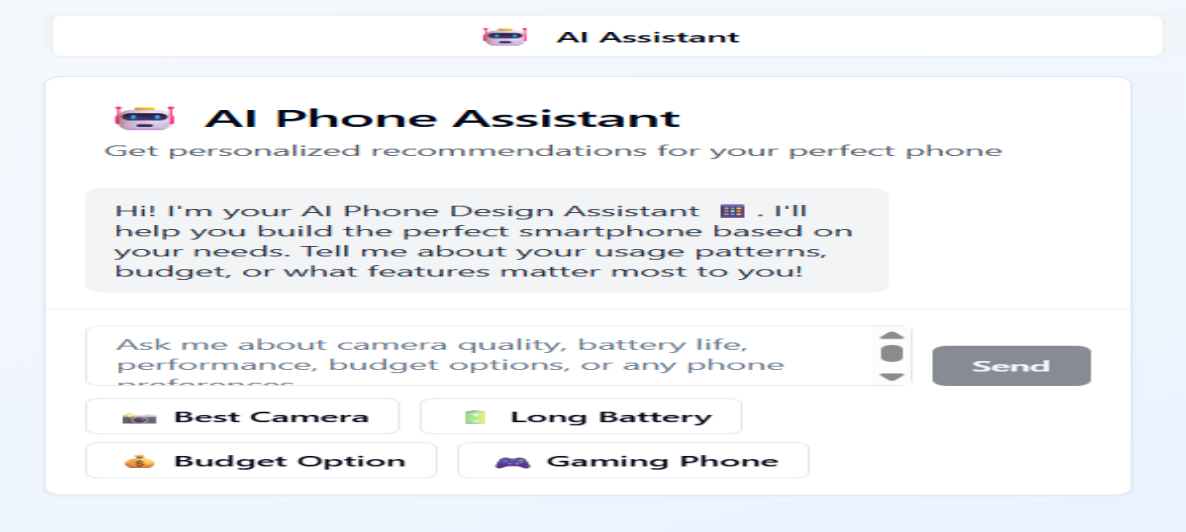
Tool Link: https://customphonebuilder.mgx.world



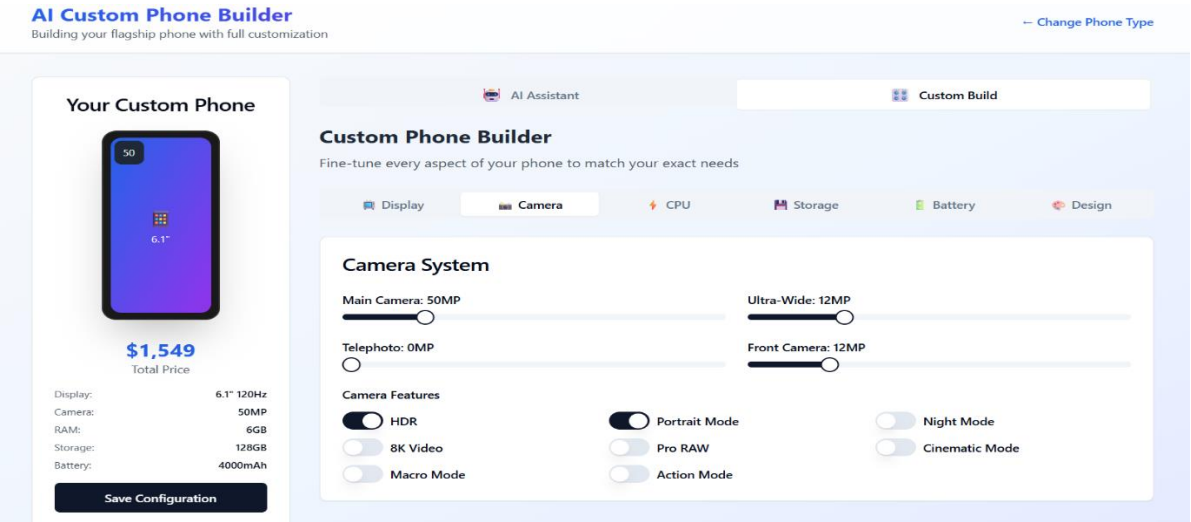
Internal Working of builder:



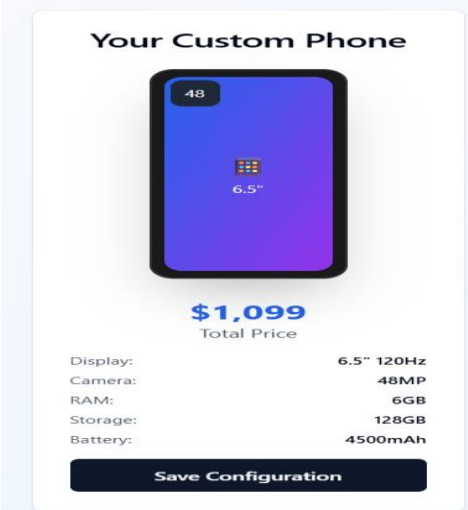
Tailoring recommendations using ai assistant:



User customization



Final configuration



Step 7: Test – Getting Feedback

- Who did I share my solution with?

I shared my **custom mobile builder** with:

- **Customer:** I like the Custom Phone Builder because it lets me design a phone with exactly the features I want, without paying for extras. It's easy to match my phone to my needs, budget, and style.
- **Mobile Seller:** This project is innovative and can attract customers who want personalized phones. It helps us stand out in a competitive market and build loyalty by meeting specific needs.
- **Investor:** The Custom Phone Builder has strong market potential due to growing demand for personalized tech. If done well, it can disrupt traditional sales and build a loyal customer

What feedback did I receive?

Feedback: Pros and Cons

Pros (Positive Insights from Feedback):

1. **Personalized Phones: Users can design phones tailored exactly to their needs and budget, avoiding unwanted features.**
2. **Market Differentiation: Offering custom phones helps the business stand out in a competitive market.**
3. **Strong Market Potential: Growing demand for personalized technology makes it a promising investment opportunity.**

Cons (Areas to Improve Noted in Feedback):

1. **Higher Production Complexity: Custom manufacturing can increase costs and complicate supply chains.**
2. **Longer Delivery Times: Custom-built phones may take more time to produce and deliver.**

3. **Technical Challenges: Ensuring all selected components work well together and app reliability can be difficult.**

My Response for The Feedback:
Thank you all for your valuable feedback and support. We are pleased to know that the concept of personalized phone building resonates well with users, sellers, and investors alike. The ability to customize phones according to individual needs and budgets is a key strength we aim to enhance further. We appreciate the recognition of our innovation and market potential.

👍 What works well:

What Works Well

1. Complete Customization: Users can create phones tailored exactly to their preferences, improving satisfaction.
2. Step-by-Step Guidance: The app offers simple steps to help users build their phones easily.
3. AI Recommendations: Smart suggestions match users with the best components for their needs.
4. Market Differentiation: Unique personalization helps the project stand out from competitors.
5. Clear Descriptions: Easy-to-understand product details help users make confident choices.

🔧 What needs improvement:

- Production Complexity: Managing custom manufacturing processes to reduce cost and delays.
- Delivery Speed: Reducing wait times for custom-built phones to improve customer satisfaction.
- Component Compatibility: Enhancing the system to ensure all chosen parts work seamlessly together.
- User Guidance: Providing more support to users who find customization overwhelming.
- Pricing Accuracy: Improving dynamic pricing models for transparency and real-time updates.

AI Tools you can use for Step 6-7:

ChatGPT/Perplexity AI/Claude AI/Canva AI/Chatling AI/Figma AI/Metamgx/Gamma AI: You can use these tools to build solutions/models or mock-up dummy prototypes

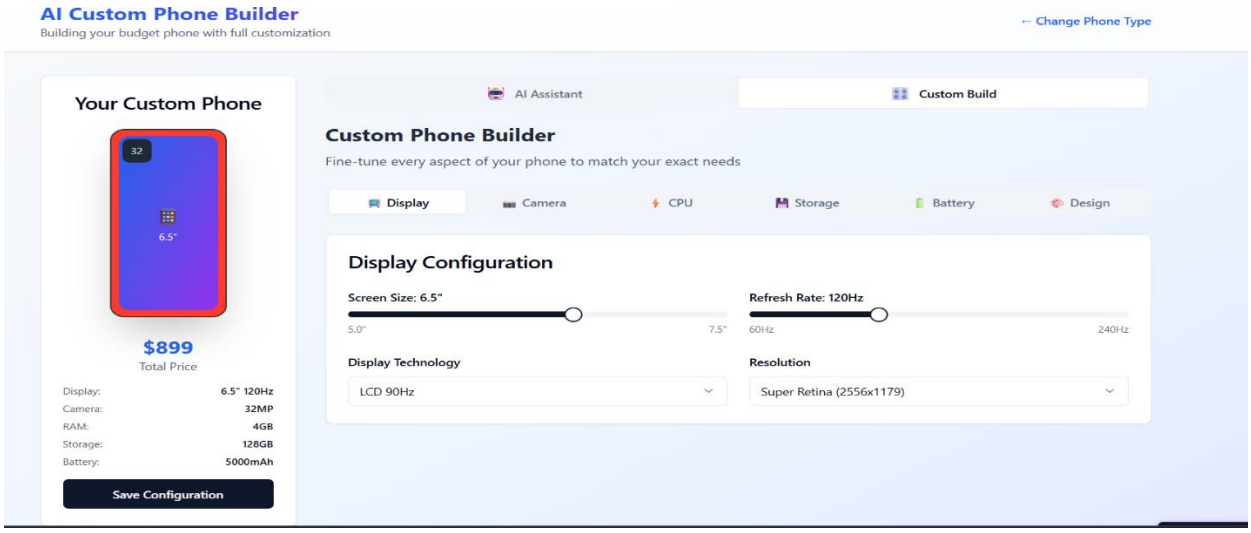
Day 4: Showcase

Step 8: Presenting my Innovation:
I am presenting Custom Phone Builder, an interactive platform that allows users to design and customize smartphones according to their specific needs and preferences. It features:

An AI-powered virtual assistant that helps users customize smartphones by providing personalized component recommendations.
A step-by-step customization process covering key features like processor, RAM, battery, and camera choice.
Dynamic pricing that adjusts based on user selections and budget limits.
A user-friendly, mobile-optimized interface built on Meta MGX with lifetime access and easy updates.

Impact: Custom Phone Builder empowers users to create phones tailored to their needs and budgets, enhances shopping satisfaction, and introduces innovation in the smartphone market.

<SHOWCASE YOUR INNOVATION TO YOUR PEERS>



Step 9: Reflections

- What did I enjoy the most during this project-based learning activity?

I enjoyed building the Custom Phone Builder using a no-code tool and seeing my idea take a real, interactive form. It was exciting to design the AI-driven customization logic, dynamic pricing, and live phone preview features, and imagine how it could empower users to create phones that perfectly match their needs and preferences.

What was my biggest challenge during this project-based learning activity?

My biggest challenge was integrating all features smoothly in the prototype using a no-code tool, especially ensuring the AI-powered customization logic, dynamic pricing, and live phone preview worked together effectively within the platform's limitations

Take-home task

https://github.com/Shinu-puthen/AI-Powered-phone-builder_project-report

AI Tools you can use for Step 8:

Canva AI: You can use this to design your pitch document. Download your pitch document as a PDF file and upload on GitHub