

# The Hackathon Technical Guide (Hackaholics 6.0)

Hi Builders,

Welcome to the Wema Bank Hackaholics Hackathon! As you prepare to tackle the challenges, we want to provide some technical guidance to help you succeed.

## Our Philosophy: Builder's Choice

This is an open hackathon. We are not forcing you to use any specific bank tools or proprietary software. The goal is to build a functional prototype that solves the problem. You have the freedom to choose the languages, frameworks, and tools you are most comfortable and productive with.

The following are recommendations, not strict requirements. They are meant to help you get started quickly with platforms that offer generous free tiers perfect for a hackathon.

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## Recommended Tech Stack & Platforms

### 1. Version Control

- **GitHub:** All projects will be managed through GitHub Classroom. All your code must be committed to your team's repository. This is the only mandatory tool.

### 2. Frontend Development & Deployment

- **Frameworks:** You are free to use any modern framework like **React, Vue, Svelte, Angular**, etc.
- **Deployment (Hosting):** Your final project must be accessible via a live, public URL. We recommend these platforms for one-click deployments from your GitHub repo:
  - [Vercel](#): Excellent for Next.js and other React frameworks. Incredibly fast to deploy.
  - [Netlify](#): Another fantastic option for modern web projects.

### 3. Backend Development & Deployment

- **Languages:** You are free to use any major language like **Node.js, Python, Go, Java, C#**, etc.
- **Deployment (Hosting):**

- **Render:** A modern platform with free tiers for web services and background workers. It's a fantastic all-in-one choice for most languages.
- **freeasphosting.net:** A good free hosting option specifically for teams building with **ASP.NET (C#)**.
- **Serverless Functions:** Platforms like **Vercel** and **Netlify** offer free tiers for serverless functions, which are perfect for building simple, scalable APIs directly within your frontend project.

#### 4. Database

- If your project requires a database, here are several great options with free tiers:
  - **In-Memory Database:** Data is stored directly in your application's memory. This is the fastest way to start, but data is erased when your app restarts.
  - **PostgreSQL Options:**
    - **Supabase:** An open-source Firebase alternative with a free PostgreSQL database, auth, and storage.
    - **Neon:** A fantastic choice for a simple, reliable, and serverless PostgreSQL database.
  - **SQL Server Option (for C#/.NET):**
    - **Azure SQL Database:** The best choice for teams who specifically need a free, cloud-based SQL Server.
  - **NoSQL Option:**
    - **MongoDB Atlas:** The most popular NoSQL database, with a permanent free tier.

#### 5. Artificial Intelligence (AI) & Machine Learning (ML)

- **Using Pre-built Models (Recommended for most teams):** The fastest way to add AI to your project is to use an existing model via an API.
  - **Hugging Face:** Offers thousands of pre-trained models for tasks like sentiment analysis that you can call via their Inference API, often for free.
  - **Google AI (Gemini API):** A powerful and easy-to-use alternative with a generous free tier for developers.

- [OpenAI \(ChatGPT API\)](#): Offers a powerful API but please note it only comes with a **limited free trial** for new accounts.
  - **Running Your Own Model:** If your project requires custom model training or fine-tuning:
    - [Google Colab](#): The best choice for a hackathon. Provides free access to GPUs in a notebook environment.
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## Final Submission Requirements

To be eligible for judging, your team's GitHub repository must contain a README.md file with the following:

1. A clear description of your project.
2. A link to your live, deployed **frontend application**.
3. A link to your live **backend API endpoint** (if applicable).
4. A recorded demo explaining how your solution works using [Loom](#).

We are incredibly excited to see what you build.

Happy Hacking!

The Wema Bank Innovation Team