**Project Proposal: DIY PC Builder & Online Store**

**Project Objective**

The objective of this project is to develop an **online PC builder and e-commerce website** that allows users to customize their own computers by selecting different hardware components, including **CPU, GPU, motherboard, power supply, memory, and storage**. The system will dynamically calculate the total price based on the selected components and provide a **shopping cart and checkout functionality**.

**Project Scope & Goals**

**1. Purpose of the Website**

* Provide users with an interactive platform to **build and purchase custom PCs** based on their needs and budget.
* Enable customers to select **compatible components** and get an estimated price before purchasing.
* Offer a smooth and intuitive shopping experience with a **shopping cart and order summary**.

**2. Target Audience**

* **PC enthusiasts** looking to customize high-performance computers.
* **Gamers and content creators** in need of custom PC configurations.
* **General consumers** looking to build PCs for work, gaming, or productivity.

**3. Key Features and Functionalities**

* **PC Component Selection**
* Users can choose from various **CPU, GPU, motherboard, RAM, power supply, and storage options**.
* Display technical specifications and prices for each component.
* **Real-Time Price Calculation**
* The total price updates dynamically as users select or modify components.
* **Compatibility Check (Optional)**
* Prevent users from selecting incompatible parts (e.g., AMD CPU with Intel motherboard).
* **Shopping Cart & Order Summary**
* Users can **add/remove items** from the cart and view their final PC build.
* Display an order summary before checkout.
* **User Management (Optional in First Phase)**
* Users can register/login to save PC builds and track orders.
* **Database Storage**
* Store available PC components, customer orders, and shopping cart data.
* **Checkout Process (Future Enhancement)**
* Allow users to place orders (payment system integration for later phase).

**Technical Requirements**

**1. Front-End Development**

* **Technologies**: HTML, CSS (Bootstrap), JavaScript
* **UI Design**:
  + Simple and intuitive **PC building interface**
  + Interactive shopping cart and live price updates

**2. Back-End Development**

* **Technologies**: PHP & MySQL
* **Database Design**:
  + **Products Table** – Stores available PC components and prices.
  + **Cart Table** – Tracks items added to the cart.
  + **Orders Table** – Stores finalized purchases.
* **Functionality**:
  + Fetch and display product data.
  + Handle user interactions and store selections in the database.
  + Implement price calculations dynamically.

**3. Integration & Testing**

* Ensure **front-end and back-end** are properly connected.
* Test the **price calculation system** for accuracy.
* Check the **shopping cart functionality** for usability and efficiency.

**4. Deployment**

* Use **XAMPP or LAMP** for local hosting during development.
* Future deployment options include **cloud hosting solutions**.

**Project Deliverables**

1. **Fully functional online PC builder & store**  
2. **Shopping cart with real-time price calculation**  
3. **GitHub repository with documented source code**