The feasibility study for CONSTRUCTA, a web-based house construction planning and visualization system, evaluates the practicality of developing the application within the given technical, economic, operational, legal, and time constraints. The main objective of this study is to assess whether the proposed system can be successfully implemented using the available resources and whether it will effectively meet user needs such as requirement collection, cost estimation, engineer–user communication, and project visualization.

Objectives:

- To evaluate whether the proposed system can be developed with the available technical resources and tools (technical feasibility).

- To determine if the project is cost-effective by comparing development costs with expected benefits (economic feasibility).

- To assess whether the system can operate smoothly in real-world conditions and be easily used by Admin, User, and Engineer roles (operational feasibility).

Information Assessment – CONSTRUCTA

To identify the information required by the system, such as user requirements, house parameters, budget inputs, material details, and engineer feedback.

To evaluate the quality and accuracy of existing information sources, including manual methods, cost estimates, design references, and communication between users and engineers.

To analyze how information will flow within the system, ensuring smooth transfer of data between User, Engineer, and Admin for decision-making and project processing.

1. Technical Feasibility

For the Personalized House Design Portal, technical feasibility is high because:

- The project uses well-established technologies such as:
  - HTML, CSS, JavaScript
  - Php for backend
  - MySQL for database management

- The required tools and frameworks are stable, widely used, and supported by large developer communities.

2. Operational Feasibility

For this project:

- The system is user-friendly and designed with simple navigation.
- Architects, engineers, and homeowners can easily use the portal to view and customize house designs.
- The system reduces manual work such as physical meetings, paper-based drawings, and repeated manual corrections.
- Users can access the system through any web browser without special training.

3. Economic Feasibility.

For the Personalized House Design Portal:

- The development cost is low

- No expensive hardware is required apart from basic computer systems and internet connectivity.
- Maintenance cost is minimal and manageable.

4. Schedule Feasibility

- The project follows a well-defined development plan.
- Modules are divided clearly.
- The system can be developed within the time frame without major risks.
- Overall Conclusion – Feasibility Study (CONSTRUCTA)
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- The feasibility study concludes that CONSTRUCTA is a fully practical and implementable system. The analysis shows that the project is technically achievable using readily available tools like HTML, CSS, JavaScript, Node.js, and MySQL. It is also economically viable, as development and operational costs are minimal compared to the significant benefits offered, such as automated budgeting, improved communication, and enhanced user experience. The system is operationally suitable, with a simple interface and clear workflows that can be easily adopted by users, engineers, and administrators