Design Goals

Design goals is the first step of system design. It identifies the qualities that our system should focus on. Many design goals can be inferred from the non-functional requirements or from the application domain. Here are some common goals followed by specific goals from client, end user and developer perspective.

- **Common goals for client and end user:**
  - *Security:* The communication between the project manager and student should be encrypted .
  - *Runtime efficiency* is the common goal for end user and client so that the response time is very less without any errors.
- **Common goals for client, end user and developer:**
  - *Reliability:* is the common goal that everyone expects the system has to be failure free at least for certain time
- **Common goal for end user and developer:**
  - *Good Documentation* is the goal that is expected by end user and developer so that the system is easy to understand.
  - *Portability* : The system should be run different web browser (firefox and internet explorer) , operating systems . Moreover it will run on Android mobiles in future.

- **Design goals for client:**
  - *Low cost:* The cost of the project should not exceed $10,000.
  - *Time frame:* The first prototype of the project has to be delivered in 3 weeks since beginning of the project.
  - *Flexibility:* The product has to be flexible for future additional feature requests.
  - *Rapid development:* The product development has to be made rapidly, and produce the incremental prototypes.
- **Design goals for end user:**
  - *Functionality :* The end user expects all the functionalities are implemented
  - *User-friendliness* : The user expects the system has friendly user interface with proper colors and easy to use
  - *Ease of learning:* The developed system has to be easy to learn and the simple words have to be used in documentation and user interfaces.
  - *Fault tolerant:* The system should have proper validation mechanism to detect fault input.
- **Design goals for Developer:**
  - *Minimal number of errors:* The system has to have minimal errors to avoid the system failure.
  - *Reusability:* By using *npm(node package manager)*, we can use some of the off-the-shelf functions. Decompose the system into reusable subsystems using design patterns.
  - Adaptability: The system should be adapted the change and tolerate changes in its environment without external intervention.

Putting all the listed goals in a diagrammatic representation.

End User

Low Cost

Time Frame

Flexibility

Rapid Development

Security,

Runtime Efficiency

Functionality

User-Friendliness

Ease of Learning

Fault Tolerant

Reliability

Good Documentation

Portability

Client

Minimal Errors

Reusability

Adaptability

Developer