

Augmented Reality Mechanical Design Solution

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PROBLEM STATEMENT

Monitoring a product design project for design businesses, designers and their client is a big pain due to technological constraints and limited options.

SOLUTION

Create an Application System which:

- Allows to request new project.
- Helps monitor progress and project related information remotely.
- Comment on different parts.

INTENDED USERS

This Application System is intended for :

- Design Companies
- Clients
- Designers

USAGE

Add Project

- Client requests project.

Create New Project

- Design Companies creates new project

Project Progress

- Update progress of the project and information.

Design Information

- Approve information and Monitor Progress

Comments on Design

- Comment on Design and Complete Payment

DESIGN REQUIREMENTS

FUNCTIONAL

- Add client account to the current projects.
- Upload CAD files to server.
- View CAD models as project progresses.
- Native app for rendering

NON-FUNCTIONAL

- Easy to use.
- Optional Payment Processing
- Available on both Android and IOS.

ENGINEERING CONSTRAINTS

- Limited resources and knowledge.
- Incomplete documentation on available API's.
- Large number of Unsupported Devices.

TECHNICAL DETAILS

Languages

- C++
- JAVA
- HTML/CSS/PHP
- JS

Environments

- Web/Android Application

Dev Tools

- Android | OPENGL/ES

Libraries

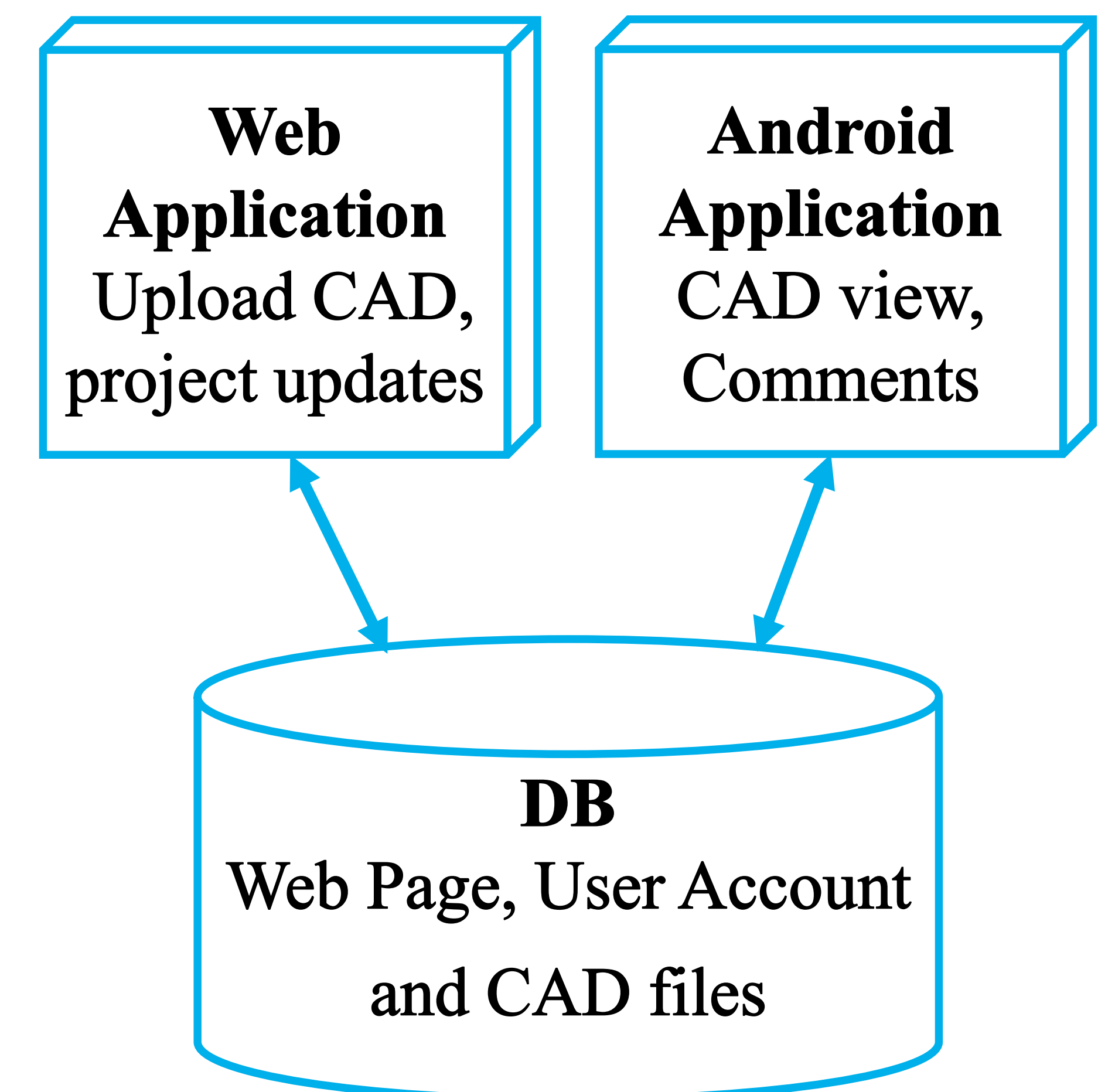
- Bootstrap, OPENGL, OPENCV, Stripe

STANDARDS

STL : Stereo Lithographic Data Format

DESIGN APPROACH

BLOCK DIAGRAM



CONCEPT POINTS

- Project is added
- Progress regularly updated
- Comments made on the project
- Request new projects

TESTING TECHNIQUES

WEBSITE

- Security (Penetration Testing)
- Unit Testing
- System Testing

ANDROID

- Loading Time (Network Analysis)
- Render Time and Complexity
- Unit Test
- System Test

TEAM MEMBERS

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