Virtual Zoo

Batch Number: 8CIT-G17

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Problem Statement Number:

Category (Hardware / Software / Both) : SOFTWARE

Problem Description: Design software and hardware to display holograms of existing and extinct species of flora and fauna to depict complex ecosystems from various parts of the world. The virtual zoo could be displayed in schools, museums, and Ministries without using much physical space. The zoo could also hold educational sessions about the environment within the virtual space using pre-recorded videos of teachers from around the world.

Difficulty Level: Simple

Github Link

The Github link provided should have public access permission.

Github Link

https://github.com/notpx/Capstone-G17

Analysis of Problem Statement

Technology Stack Components:

ESP32 microcontroller

ReactJS, Java, HTML, CSS

Wifi Libraries for microcontroller and libraries for converting images to bitmap & pixel format

Analysis of Problem Statement (contd...)

Software and Hardware Requirements:

Esp32, wires, other essential electronic parts

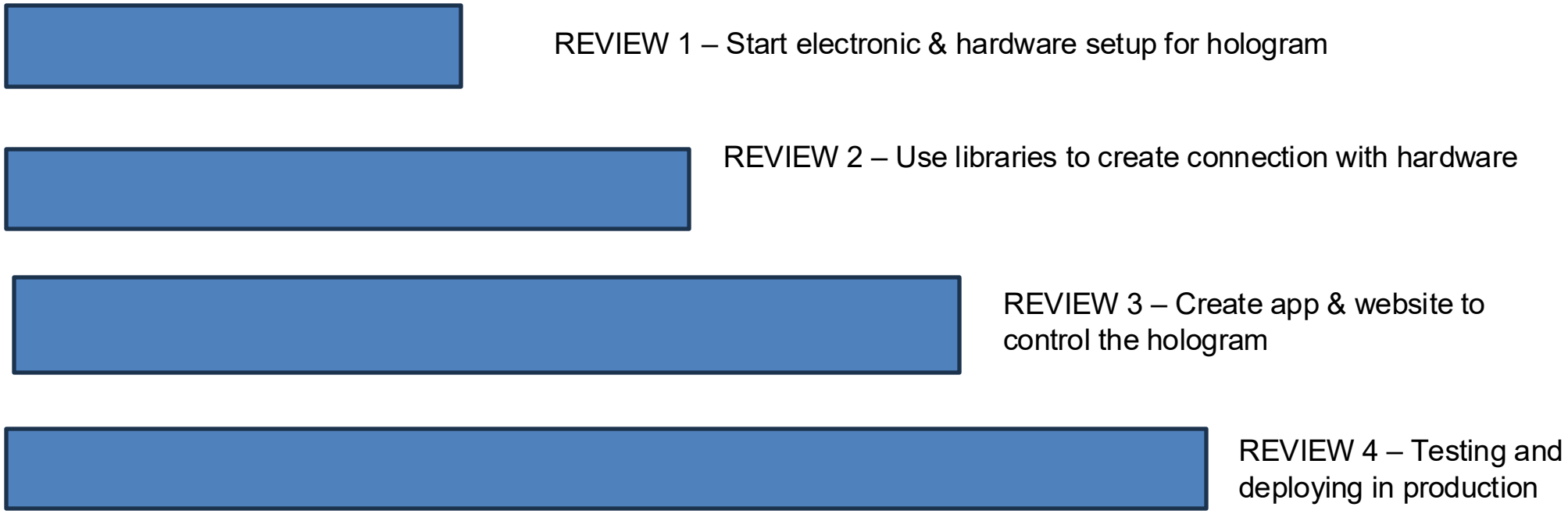
Essential libraries for image conversion, libraries for transfer json files over WiFi

Analysis of Problem Statement (contd...)

- **Technological Feasibility**: Developing realistic, interactive holograms and ensuring seamless hardware integration without requiring extensive physical space.
- **Content Creation**: Accurately representing species and ecosystems, while making the educational material engaging and interactive.
- **User Experience**: Designing an intuitive interface for diverse audiences, ensuring the holographic experience is immersive and easy to navigate.

Timeline of the Project (Gantt Chart)

Gantt chart of our project.



References (IEEE Paper format)

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4. A. Cichocki and R. Unbehaven, Neural Networks for Optimization and Signal Processing , 1st ed. Chichester, U.K.: Wiley, 1993, ch. 2, pp. 45-47.
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Fig -1: ESP32
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Thank
You!