**VChat**

***A Project Report submitted in partial fulfilment of the requirements for the award of the degree of***

**Bachelor of Technology**

**in**

**Computer Science and Engineering**

**by**

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Under the Guidance of

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**GLA University**

**Mathura- 281406, INDIA**

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**PROJECT TOPIC: VChat**

**Group No.:**

**Project Group Members:**

1. Abhishek Kushwaha (B-2 / 2115000022)

**2.** Aditya Vishwanathan (B-9 / 2115000082)

**Project Supervisor:** Ms. Robin Khurana

**About the Project:**

The WeChat project aims to develop a comprehensive communication infrastructure consisting of an Android messaging app and a web version built on the MERN stack. The Android app utilizes React Native, WebSocket, and WebRTC for real-time messaging and high-quality video calling. The web version, powered by ReactJS, offers developer controls, moderation features, and a structured platform. This integrated approach facilitates cross-platform communication and provides a user-centric experience. WeChat is not merely an chat platform but a communication infrastructure designed to adapt to the ever-changing needs of modern users.

**Motivation:** The project's significance lies in redefining mobile messaging applications by offering seamless cross-platform communication, real-time messaging excellence, and high-quality video calling. WeChat prioritizes openness, privacy, and continuous innovation, addressing limitations in existing applications to provide a distinctive user experience.

**Project Planning:**

The project will proceed through the following phases:

1. **Research and Learning (1 months):** Understanding React Native, ReactJS, WebSocket, and WebRTC.
2. **Android App Development (1 months):** Implementing real-time messaging and video calling features.
3. **Web Version Development (1 months):** Building the web version with MERN stack, emphasizing developer controls and moderation features.
4. **Integration and Testing (1 months):** Ensuring seamless cross-platform compatibility and rigorous testing.
5. **Documentation and Finalization (1 month):** Preparing the project report and finalizing the deliverables.

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| Task / Period (in Weeks) | 1-2 | 3-4 | 5-6 | 7-8 | 9-10 |
| **Research and Learning** |  |  |  |  |  |
| **Android App Development** |  |  |  |  |  |
| **Web Development** |  |  |  |  |  |
| **Integration and Testing** |  |  |  |  |  |
| **Documentation** |  |  |  |  |  |

**Tools required:**

* **Hardware Requirements:**

1. Android devices (v9 +)
2. Desktop devices.
3. Stable internet connection.

* **Software Requirements:**

1. Web Browsers (Chrome, Edge, Firefox)
2. App Installation permissions.

**Signature of Project Supervisor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**