**Product Requirements Document (PRD) for AI & VR Based Productivity Tool(HyProd)**

**Executive Summary:**

The AI & VR Based Productivity Tool **HyProd** is a cutting-edge platform that aims to revolutionize how users collaborate, communicate, and manage tasks. By leveraging artificial intelligence and virtual reality technologies, the platform intends to enhance productivity, streamline workflows, and create an immersive and efficient work environment. The vision is to provide a seamless and intuitive user experience that empowers individuals and teams to work smarter and achieve their goals with greater ease.

**User Personas and Pain Points:**

a) **User Persona 1**: The Remote Team Leader

- Job-To-Be-Done: Efficiently manage and coordinate remote teams.

- Pain Points: Lack of face-to-face interaction, difficulty in task delegation, and tracking team progress.

b) **User Persona 2**: Employee

- Job-To-Be-Done: Collaborate with colleagues and clients on creative projects.

- Pain Points: Limited tools for real-time visualization and feedback, difficulty in conveying complex ideas remotely. Less interaction between team on real time basis.

c) **User Persona 3**: The Manager

- Job-To-Be-Done: Stay organized and manage multiple projects simultaneously and to monitor different teams productivity.

- Pain Points: Overwhelmed by numerous tasks, need for effective time management tool. No real time interaction between different teams, not able to check how productive each employees on real time basis.

**Key Features and Functionality**:

**A) Features:**

1) **Real-time Collaboration**: Users can collaborate on projects, documents, and designs with live updates.

2) **Virtual Meetings**: Users can conduct virtual meetings with realistic avatars and interactive environments.

3) **AI-Powered Task Management**: AI algorithms help users prioritize tasks and optimize workflows.

4) **Immersive Brainstorming**: Virtual reality enables immersive brainstorming sessions for creative projects.

5) **Interactive Whiteboard**: Virtual whiteboard with drawing tools for ideation and presentations.

6) **Effective Communication Tools**: Integrated chat, voice, and video for seamless communication.

7) **Data Visualization**: AI-driven data analysis and visualization for informed decision-making.

8) **Safe Lockers**: Users can access safe lockers with blockchain model security control and also enables them to use the finger print to unlock the lockers.

9) **Virtual Punch in & Punch out** : AI driven finger print scanner enables users to Punch in & Punch out that enables the Manager to track their productivity time and attendance.

10) **User Friendly Interface**: Using AI & VR enables the user to feel comfortable using the application and it attracts them to be more productive.

11) **Auto Reminders** : AI features helps the user to get the auto reminders on their projects

12) **Different virtual rooms** : User can get different kinds of virtual rooms such as Breakout rooms, Play rooms, Award function rooms, Dining rooms, Alone space for mind free work, meeting rooms, Different team wise rooms, department wise rooms, interview room.

13) **Company wise Social Media** : Each company will get their own social media platform where every employees of that company can collaborate.

14) **File Sharing** : User can easily share their files with anybody on real time base.

**B) Functional Requirements:**

a) **Real-time Collaboration**:

User Flow: Login → Create/Join Project → Invite Team Members → Edit in Real-time → Save & Sync

Screens: Dashboard, Project Creation, Collaboration Interface

Third-party Integration: Cloud storage for file synchronization.

b) **Virtual Meetings:**

User Flow: Schedule Meeting → Invite Participants → Join Meeting → Share Content → Record Meeting

Screens: Meeting Scheduler, Virtual Meeting Room

Third-party Integration: Video conferencing API.

c) **AI-Powered Task Management**:

User Flow: Login → Create Task → Assign Task → Set Priority and Deadline → AI Prioritization → Task Tracking → Update Task Status → Save & Sync

Screens: Dashboard, Task Creation, Task Assignment, Task Tracking

Third-party Integration: Calendar integration for task deadlines and reminders.

d) **Immersive Brainstorming**:

User Flow: Login → Create Brainstorming Session → Choose Immersive Environment → Invite Participants → Collaborate in Real-time → Save & Sync Ideas

Screens: Dashboard, Brainstorming Session Creation, Immersive Environment Selection, Collaboration Interface

Third-party Integration: Virtual Meeting API

e) **Interactive Whiteboard:**

User Flow: Login → Create Whiteboard → Add Drawing Tools → Collaborate in Real-time → Save & Export Whiteboard → Sync Changes

Screens: Dashboard, Whiteboard Creation, Drawing Tools Customization, Collaboration Interface

Third-party Integration: Whiteboard Integration

f) **Effective Communication Tools**:

User Flow: Login → Start Chat/Call/Video Conference → Invite Participants → Join Communication Session → Share Content → End Session

Screens: Dashboard, Communication Options, Contact List, Communication Interface

Third-party Integration: Video conferencing/Chatting API.

g) **Data Visualization**:

User Flow: Login → Upload Data → AI Data Analysis → Choose Visualization Type → Interact with Visualizations → Save & Export Visualizations

Screens: Dashboard, Data Upload, Visualization Selection, Interactive Visualization Interface

Third-party Integration: Visualization tool API

h) **Safe Lockers**:

User Flow: Login → Create Locker → Set Security Preferences → Store Items → Use Fingerprint/Block chain passcode for Unlocking → Sync Locker Access Data

Screens: Dashboard, Locker Creation, Security Settings, Locker Access Interface

Third-party Integration: Blockchain-based security control.

i) **Virtual Punch in & Punch out**:

User Flow: Login → Access Virtual Punch System → AI-Driven Fingerprint Scan → Punch in/Punch out → Manager Access to Attendance Data

Screens: Dashboard, Virtual Punch System, Fingerprint Scanning, Manager Attendance Monitoring

Third-party Integration: Fingerprint scanner API

j) **User Friendly Interface**:

User Flow: Login → Onboarding/Tutorial → Personalization Preferences → Intuitive Navigation → Seamless Interaction → Save Customizations

Screens: Dashboard, Onboarding/Tutorial, Customization Settings, Intuitive Interface

Third-party Integration: None

k) **Auto Reminders**:

User Flow: Login → Set Reminder Preferences → AI-Driven Reminder System → Receive Automated Reminders → Snooze or Dismiss Reminders

Screens: Dashboard, Reminder Settings, Reminder Notifications

Third-party Integration: None

l) **Different Virtual Rooms**:

User Flow: Login → Choose Room Type → Customize Room (if allowed) → Manage Room Access → Collaborate in Virtual Room → Save & Sync Room Data

Screens: Dashboard, Virtual Room Selection, Room Customization (if allowed), Room Access Management

Third-party Integration: VR based virtual office room facilitator

m) **Company Wise Social Media**:

User Flow: Login → Access Company-Specific Social Media → Collaborate and Share Updates → Engage with Colleagues → Save & Sync Social Media Interactions

Screens: Dashboard, Company Social Media Interface, Posts and Updates, Colleague Engagement

Third-party Integration: None

n) **File Sharing** :

User Flow: Login → Upload File → Set Access Permissions → Share File Link → Download and Access Files → Save & Sync

Screens: Dashboard, File Upload, Access Permissions Settings, File Management Interface

Third-party Integration: Cloud storage for file hosting and sharing

**Non-functional Requirements**:

- Scalability: The platform should handle a growing number of users and projects.

- Security: End-to-end encryption and data protection to ensure privacy.

- Speed: Low latency for real-time collaboration and smooth virtual experiences.

- Reliability: Minimal downtime and high availability for uninterrupted usage.

- Legal & Regulatory Compliance: Compliance with data protection and user privacy laws.

**MVP and Backlog**:

Justification and Hypotheses for Validation:

1. **Real Time- Collaboration**:

**Justification**: Real-time collaboration enables instant interaction and decision-making, fostering agile and efficient teamwork, irrespective of geographical locations

**Hypothesis** : Implementing real-time collaboration will reduce project turnaround time by 20%, facilitating faster decision-making and project delivery.

1. **Virtual Meetings**:

**Justification** : Virtual meetings offer face-to-face interactions without physical presence, saving time and resources for global teams

**Hypothesis**: Adopting virtual meetings will decrease travel expenses by 30% and increase meeting attendance rates by 25%, leading to more effective collaboration and decision-making.

1. **AI-Powered Task Management:**

**Justification**: AI-powered task management can improve efficiency by optimizing task prioritization and workflows.

**Hypothesis**: By using AI algorithms for task prioritization, users will experience a 20% reduction in time spent on low-priority tasks, leading to improved overall productivity.

1. **Immersive Brainstorming**:

**Justification**: Immersive brainstorming can foster creativity and improve idea generation among team members.

**Hypothesis:** Virtual reality-based brainstorming sessions will lead to a 15% increase in the number of innovative ideas generated compared to traditional brainstorming methods.

1. **Interactive Whiteboard**:

**Justification**: An interactive whiteboard can enhance collaboration and visualization during meetings and presentations.

**Hypothesis:** The availability of interactive whiteboards will result in a 25% increase in engagement and participation during virtual meetings and presentations.

1. **Effective Communication Tools**:

**Justification**: Integrated chat, voice, and video tools can facilitate seamless communication among team members.

**Hypothesis**: The implementation of effective communication tools will lead to a 30% reduction in the time taken to resolve communication-related issues within teams.

1. **Data Visualization**:

**Justification**: AI-driven data visualization can provide actionable insights for data-driven decision-making.

**Hypothesis**: With AI-driven data visualization, users will experience a 25% improvement in their ability to interpret and act upon complex data patterns.

1. **Safe Lockers:**

**Justification**: Blockchain-based security control can provide robust security for sensitive user data.

**Hypothesis**: Implementing safe lockers with blockchain model security will increase user trust and result in a 20% decrease in security-related concerns.

1. **Virtual Punch in & Punch out**:

**Justification**: AI-driven fingerprint scanning can accurately track employee attendance and productivity.

**Hypothesis**: The virtual punch in & punch out feature will lead to a 15% increase in employee punctuality and accountability.

1. **User-Friendly Interface**:

**Justification**: A user-friendly interface powered by AI and VR can enhance user adoption and satisfaction.

**Hypothesis**: The user-friendly interface will result in a 30% increase in user retention and engagement.

1. **Auto Reminders**:

**Justification**: AI-driven automated reminders can improve task management and deadline adherence.

**Hypothesis**: The auto reminders feature will lead to a 20% reduction in missed deadlines and project delays.

1. **Different Virtual Rooms:**

**Justification**: Providing various virtual room types can cater to different collaboration needs and preferences.

**Hypothesis**: Offering different virtual room options will result in a 25% increase in user satisfaction and comfort during collaboration sessions.

1. **Company Wise Social Media**:

**Justification**: Company-specific social media platforms can foster better communication and collaboration among employees.

**Hypothesis**: Implementing company-wise social media will lead to a 20% increase in cross-departmental collaboration and knowledge sharing.

1. **File Sharing**:

**Justification**: File sharing streamlines collaboration, reduces email clutter, and ensures easy access to shared documents.

**Hypothesis**: Introducing file sharing will boost team productivity by 25% and decrease version conflicts by 20%, resulting in improved collaboration and project outcomes.

**Product Backlog**:

**Milestone 1**: **Minimum Viable Product (MVP) Release**

- Real-time Collaboration

- AI-Powered Task Management

- Effective Communication Tools

- User-Friendly Interface

- Virtual Meeting

- File Sharing

**Milestone 2**: **Enhanced Collaboration and Productivity**

- Immersive Brainstorming

- Interactive Whiteboard

- Auto Reminders

- Different Virtual Rooms

**Milestone 3**: **Advanced Analytics and Security**

- Data Visualization

- Safe Lockers

- Virtual Punch in & Punch out

- Company Wise Social Media

**Milestone 4: Optimization and Feedback**

- Continuous Improvements and Bug Fixes

- User Feedback and Iterative Enhancements

- Performance Optimization and Scalability

**Business Goals and Metrics:**

- **Goal 1:** Increase user acquisition by 20% in the first six months.

- **Goal 2:** Achieve a user engagement rate of 70%.

- **Goal 3:** Retain 90% of active users on a monthly basis.

- **Goal 4:** Generate $20000 revenue in the first year.

- **Key Performance Indicators (KPIs):** Monthly Active Users, Session Duration, User Churn Rate, Average Revenue Per User (ARPU).