**Project Plan: AI-Powered VR Training Application**

**for DBX London**

**By**

**Data Software Technologies**

**1. Project Overview**

DBX London is developing an AI-powered **Mixed Reality (MR) training application** to revolutionize football training. The project integrates **Artificial Intelligence (AI), Digital Twin technology, and Virtual Reality (VR)** to enhance player development, decision-making, and performance analysis.

**2. Project Objectives**

* **AI-Powered Digital Twin:** Create a virtual replica of real-world player performance.
* **Predictive Analytics:** Optimize training programs using AI-driven insights.
* **Immersive VR Training:** Develop a **VR simulation** for skill-building.
* **Admin & Coaching Dashboard:** Provide real-time performance insights.
* **Cost-Effective Implementation:** Ensure financial sustainability through strategic funding.

**3. Applications Being Developed & Their Purpose**

To achieve the project goals, multiple applications will be developed:

|  |  |
| --- | --- |
| Application | Purpose |
| VR Training Application | Provides an immersive football training experience using AI-driven simulations and real-time feedback. |
| Mobile Application | Enables players to track performance data, receive training recommendations, and schedule sessions. |
| Admin Portal (Web-Based) | Allows coaches and admins to monitor player progress, adjust training plans, and analyze AI-driven insights. |
| Cloud AI & Analytics Platform | Stores player data securely on **Azure**, runs AI-powered predictive analysis, and manages Digital Twin models. |

Each of these applications works together to create an **integrated and data-driven training ecosystem** for DBX London players.

**4. Project Timeline & Phases**

|  |  |  |
| --- | --- | --- |
| Phase | Description | Duration |
| Phase 1 | Data Collection & Digital Twin Development | 3 months |
| Phase 2 | AI Training Model & VR Simulation Development | 4 months |
| Phase 3 | Full MR Deployment & Testing in Real Matches | 3 months |
| Total | **End-to-End Development & Deployment** | **10 months** |

**5. Cost Estimation (in USD)**

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| --- | --- |
| Component | Cost Estimate (USD) |
| Hardware (Motion Sensors, Tracking Cameras, Smart Wearables, VR Headsets, Servers) - Costs Based on Actuals | N/A |
| AI Development & Software Engineering | $60,000 |
| VR/MR Application Development | $60,000 |
| Data Processing & AI Model Training | $30,000 |
| Project Management, Testing & Quality Assurance | $30,000 |
| Azure Cloud Server & Storage - Costs Based on Actuals | N/A |
| Total Estimated Cost | **$180,000** |

**6. Required Resources & Team Composition**

To successfully develop and deploy the AI-powered VR training application, the following resources and expertise are required:

|  |  |  |  |
| --- | --- | --- | --- |
| Resource Type | Number of Resources | Role Description | Role |
| AI & ML Engineers | 3-5 | Develop AI models, predictive analytics, and Digital Twin system. | DST |
| VR/MR Developers | 3-4 | Build immersive VR training simulations and Mixed Reality overlays. | DST |
| Data Scientists | 2-3 | Process and analyze player movement data for AI insights. | DST |
| Software Engineers | 2-3 | Develop and integrate Azure cloud infrastructure and API services. | DST |
| UI/UX Designers | 2 | Design intuitive user interfaces for players and coaches. | DST |
| Project Managers | 1-2 | Oversee project execution, ensure milestones are met. | DST |
| QA Engineers | 2-3 | Conduct rigorous testing of AI and VR/MR functionalities. | DST |

**7. Agile Project Management & Tools**

* **Scrum Framework** – Sprints, Daily Stand-ups, and Retrospectives.
* **JIRA** – Task tracking and sprint management.
* **Confluence** – Documentation and knowledge sharing.
* **GitHub/GitLab** – Version control and CI/CD pipelines.
* **Azure DevOps** – Cloud-based project management and deployment.
* **Demo Sessions** – Conducted at the end of each sprint for stakeholder review.
* **Microsoft Teams** – Used for seamless team collaboration and communication.
* **Weekly Project Updates** – Regular updates to track progress and align expectations.
* **Monthly Connects** – Structured meetings to discuss progress and upcoming sprints.

**7. Payment Plan**

|  |  |
| --- | --- |
| Milestone | Payment Percentage |
| On Sign-Up | 20% |
| Architecture Completion | 10% |
| Each Sprint Completion (6 Total Sprints) | 10% per sprint |
| Go Live | 10% |
| Warranty Period (30 Days Bug Fixes Free) | Provided by Agile World |

**9. Risk Management & Mitigation Strategy**

|  |  |  |
| --- | --- | --- |
| Risk Category | Potential Risk | Mitigation Strategy |
| Technical | AI models may not perform accurately | Conduct rigorous testing with diverse datasets. |
| Operational | Delays in data collection & training implementation | Regular progress tracking with Agile sprints. |
| Security & Data | Sensitive player data privacy concerns | Ensure compliance with GDPR and encrypted storage. |

**10. Compliance & Data Security**

* **Data Encryption & Secure Storage** – All player data is encrypted and stored securely on **Azure Cloud**.
* **Regulatory Compliance** – The platform complies with **GDPR and sports data protection policies**.
* **Ethical AI Practices** – AI models undergo bias testing to ensure fair evaluations.

**11. Post-Deployment Support & Maintenance**

* **30-Day Free Bug Fixing Warranty** – All issues reported within 30 days will be fixed at no extra cost.
* **Support & Maintenance** – Further contracts to be discussed post-go-live.
* **No New Features During Warranty Phase** – The focus is on bug fixes and system stability.

**12. Next Steps**

1. **Capture detailed requirements** to define project scope.
2. **Identify similar applications** for reference.
3. **Finalize AI-VR team** and technical architecture.
4. **Initiate data collection** via wearables and tracking devices.
5. **Pilot test the AI Digital Twin & VR simulation**.
6. **Define test data frequency** for performance validation.
7. **Expand AI & MR integration** across DBX London.