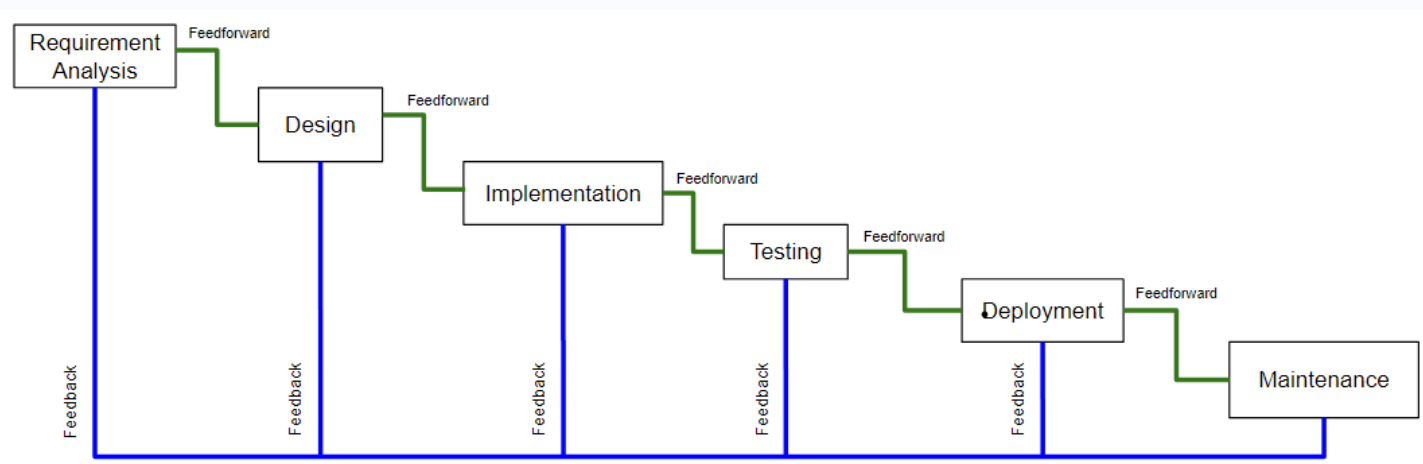
Waterfall Map: Event management System



Box Number	Process	Team Requirements	Tasks
1	Requirement Analysis	Business Analysts: To gather and document detailed system requirements. Project Managers: To plan timelines, resources, and coordinate across teams. Data Scientists/AI Specialists: To assess the type of AI models required. Stakeholders: To provide feedback on desired system features.	Gather requirements from stakeholders (event organizers, attendees, sponsors, etc.) to define the system objectives. Identify the specific AI tools needed, such as recommendation engines, chatbots, and predictive analytics for event logistics. Document all functional and non-functional requirements, including security, scalability, and data privacy needs.
2	System Design	Software Architects: To design the overall architecture, integration points, and cloud strategy. AI Specialists: To design the model architecture for personalization, chatbots, and predictive analytics. UI/UX Designers: To create user-friendly interfaces for both attendees and event organizers. Database Administrators (DBAs): To design the data storage solutions for event data and attendee behaviour.	Design the architecture of the system, including frontend and backend components. Create detailed UML diagrams and wireframes for the user interfaces (both admin dashboard and attendee portal). Plan for the integration of AI models (recommendation engine, chatbot, predictive analytics) into the system. Select tools, platforms, and frameworks (e.g., Google Cloud, TensorFlow, Dialogflow).

3	Implementation	Frontend Developers: To build the user interfaces and connect with APIs. Backend Developers: To build the backend, integrate AI models, and ensure proper data flow. Data Scientists: To develop and train AI models for recommendations, chatbots, and analytics. DevOps Engineers: To set up and manage the cloud infrastructure and deployment pipelines.	Develop the frontend for attendee registration, personalized recommendations, and admin dashboards. Develop the backend system including APIs, databases, and data processing pipelines for AI models. Build and train the AI models for recommendation, chatbot, and resource allocation. Integrate AI models with the backend and test their interactions with the frontend.
4	Testing	Quality Assurance (QA) Engineers: To run automated and manual tests for functionality, performance, and integration. Data Scientists: To ensure AI model accuracy and evaluate predictions. UI/UX Designers: To gather feedback from UAT and address any usability issues.	Conduct unit testing on individual components like the recommendation engine, chatbot, and event management modules. Perform integration testing to ensure all parts of the system (AI, frontend, backend) work together seamlessly. Run performance testing to evaluate system behaviour under stress, such as handling large-scale events with many users. Perform user acceptance testing (UAT) with a small group of real users to gather feedback on usability and system performance.
5	Deployment	DevOps Engineers: To handle cloud setup, deployment pipelines, and ensure the system scales effectively. Database Administrators: To ensure databases are secure, properly scaled, and backed up.	Deploy the system on cloud infrastructure (e.g., Google Cloud) for live use by event organizers and attendees. Set up continuous monitoring for system performance, AI model

		System Administrators: To monitor system performance and fix deployment-related issues.	efficiency, and any potential security risks. Configure automated scaling for larger events to ensure the system can handle increased user load.
6	Maintenance	Maintenance and Support Teams: To address real-time issues, patch bugs, and offer technical support. Data Scientists: To retrain AI models as new data becomes available and update model parameters. DevOps Engineers: To manage ongoing cloud resources and infrastructure optimizations.	Monitor the system's performance, uptime, and security in real-time. Apply updates to the AI models as more event data is collected for better recommendations and predictions. Handle user-reported bugs, performance issues, and security vulnerabilities as they arise. Provide ongoing support to event organizers using the system.