FEYZİYE SCHOOLS FOUNDATION
IŞIK UNIVERSITY

Technology Domain Selection and Initial Project Idea and Project Idea Development

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Technology Domain Selection and Initial Project Idea

Selected Technology Domain

For this assignment, I have chosen the domain of **Web-Based Applications** with a focus on **Microservices Architecture**. Supporting domains include **Big Data & Cloud Computing** (for handling large volumes of academic data) and **Digital Transformation** (addressing fragmented academic workflows).

Problem Definition

In academic environments, the processes for managing **conferences, workshops, and journals** are usually fragmented:

- Submissions, peer reviews, and publishing often require different platforms.

- This creates inefficiency, confusion, and inconsistent workflows.

- Organizers lack integrated dashboards to monitor the overall process.

Initial Project Idea

My project idea is to design a **web-based Academic Conference and Journal Management Platform** that integrates the end-to-end processes of academic events and publications.
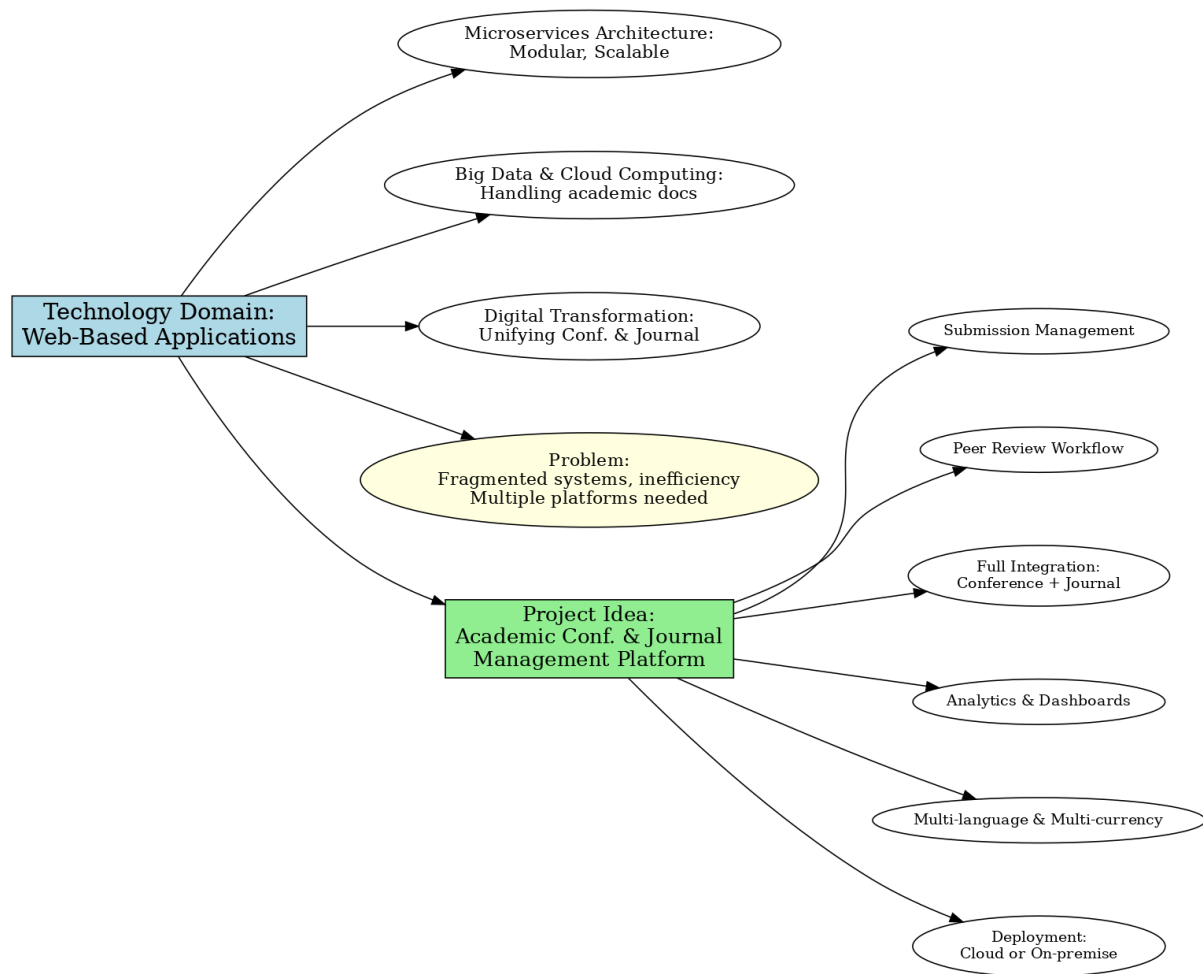
Core Features:

- **Submission Management:** Authors submit papers easily through the platform.

- **Peer Review Workflow:** Reviewers can be assigned, reviews tracked, and outcomes recorded.

- **Integration of Conferences and Journals:** A single platform handling both event proceedings and journal publishing.

- **Analytics and Dashboards:** Organizers can view KPIs such as acceptance ratios, reviewer activity, and deadlines.

- **Multi-language and Modularity:** Designed for international academic use and scalable growth.

Sub-Branches to Explore

- **Software Architecture:** Microservices, container-based deployment, scalability.

- **Workflow Automation:** Automating submission and review tracking.

- **User Experience:** Modern, intuitive UI/UX for authors, reviewers, and organizers.

- **Deployment Models:** On-premise or cloud-based, depending on institutional needs.

Mind Map

Project Idea Development

Innovative Aspects

The innovative aspects of my project can be summarized as follows:

- **Full Integration:** Unlike most existing systems that separate conferences and journals, my platform combines both processes into a single, unified system.

- **Microservice Architecture:** A modular and scalable design that allows new features to be added easily and ensures long-term maintainability.

- **Advanced Dashboards & Analytics:** Organizers can track acceptance ratios, reviewer activity, and submission timelines with modern, customizable dashboards.

- **International Support:** Multi-language and multi-currency features make the platform suitable for global academic communities.

- **Flexible Deployment:** The system can be deployed either on-premise or in the cloud, depending on institutional preferences.

Innovation Level

The innovation level of this project goes beyond incremental improvements. While some features such as improved dashboards and user-friendly design are incremental, the full integration of conference and journal management within one modular platform represents a **disruptive innovation**. This approach has the potential to significantly change how academic events and publications are organized and managed.

Product / Feature	Submission Management	Peer Review Workflow	Conf + Journal Integration	Cloud-Based	Customizable	Analytics/Dashboards
EasyChair	x	x	Limited	x		Basic
OpenConf	x	x	Some		Limited	Basic
Editorial Manager	x	x	Journal only	x		Advanced
OJS (Open Journal Sys.)	x	x	Journal only		x	Moderate
My Product	**x**	**x**	**Full Integration**	**TBD / Optional**	**x**	**Advanced**