SMART INDIA HACKATHON 2024

- **Problem Statement ID -** SIH1724
- **Problem Statement Title -** Platform for Inter-departmental cooperation (at city level) in Indian Cities, for sharing data & resources, unified phasing, planning and implementation of projects.
- **Theme -** Miscellaneous
- **PS Category -** Software
- **Team ID -**
- **Team Name -** Zenith

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City Forge

Inter-Departmental Project Collaboration

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Proposed Solution:

- Coordination between all the involved government departments, proper planning & risk management has always been a major issue in major infrastructural projects & tasks.
- Introducing City Forge, a one stop integrated platform where one can find every needed information about all the projects and tasks involving government departments.
- The solution offers the following–
    - ***Platform Dashboard*** behaves as a one stop platform & presents all the information about the projects & resources and also visualizes the work distribution.
    - ***Discussion Forum*** acts as an environment that allows the users to convey relevant information, ideas or comments.
    - ***Real-Time Monitoring*** conducted by Geolocation services and drones provides accurate details about the status of the projects with any hinderances.
    - *Delay Prediction & Risk Management* provides data-driven insights helping in better planning. This reduces cost and improves resource management.

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TECHNICAL APPROACH

Technology Stack:

Dashboard:

- MERN

Scripts:

- Python
- JavaScript

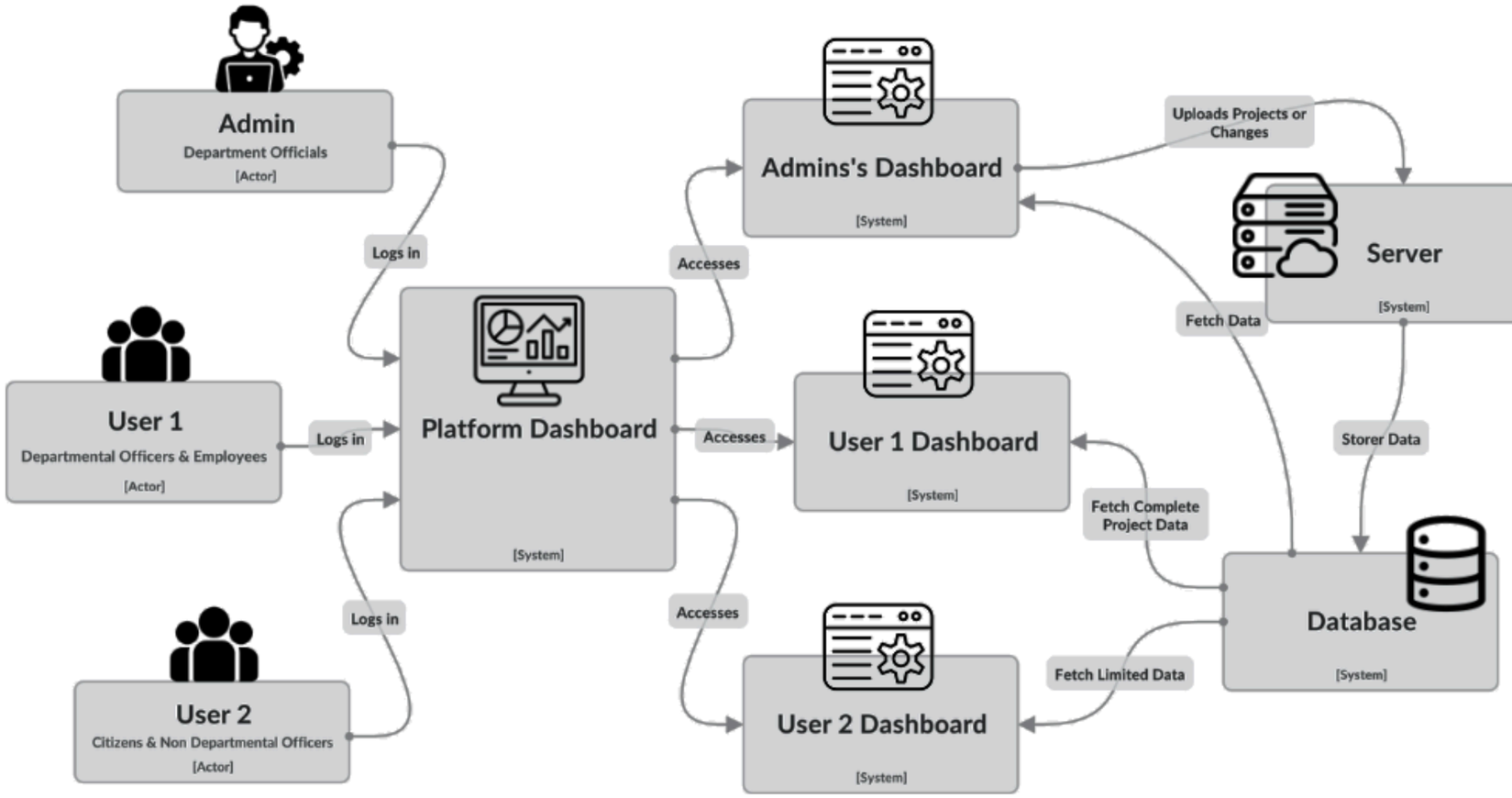
Database:

- MongoDB

Tools:

- GitHub
- Postman

Application Architecture:



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FEASIBILITY AND VIABILITY

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Feasibility Analysis

- Data Standardization
- Phased Implementation
- Robust Architecture
- Administrative Leadership
- Governance Framework

Potential Challenges

- Cybersecurity Risks
- Departmental Silos
- Usage Adoption
- Skill Gaps
- Public Trust Issues

Viable Strategies

- User friendly
- Collaborative Framework
- One stop functionality
- Modular Approach
- Real-Time Monitoring

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IMPACT AND BENEFITS

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Impact:

- Increased Efficiency
- Enhanced Coordination
- Data-Driven Decisions
- Increased Transparency
- Resource Management

Benefits:

- Cost Reduction
- Advanced Tools
- Risk Management
- Public Engagement
- Data Visualization

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RESEARCH AND REFERENCES

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Resources followed:

- https://briq.com/blog/the-importance-of-cross-department-collaboration-in-construction
- https://www.researchgate.net/publication/366345017_Collaboration_and_Data_Sharing_in_Inter-Organizational_Infrastructure_Construction_Projects
- https://www.itcon.org/paper/2023/20
- https://www.ibef.org/government-schemes/pm-gati-shakti-yojana

External tools used:

- https://github.com/newtein/erm
- https://github.com/Aditya1942/React-native-auth
- https://github.com/aaronksaunders/ReactNativeRealm-Expo-Template

Research Paper:

Article

Collaboration and Data Sharing in Inter-Organizational Infrastructure Construction Projects

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