



K.R. MANGALAM UNIVERSITY
THE COMPLETE WORLD OF EDUCATION

E-SMART DASH

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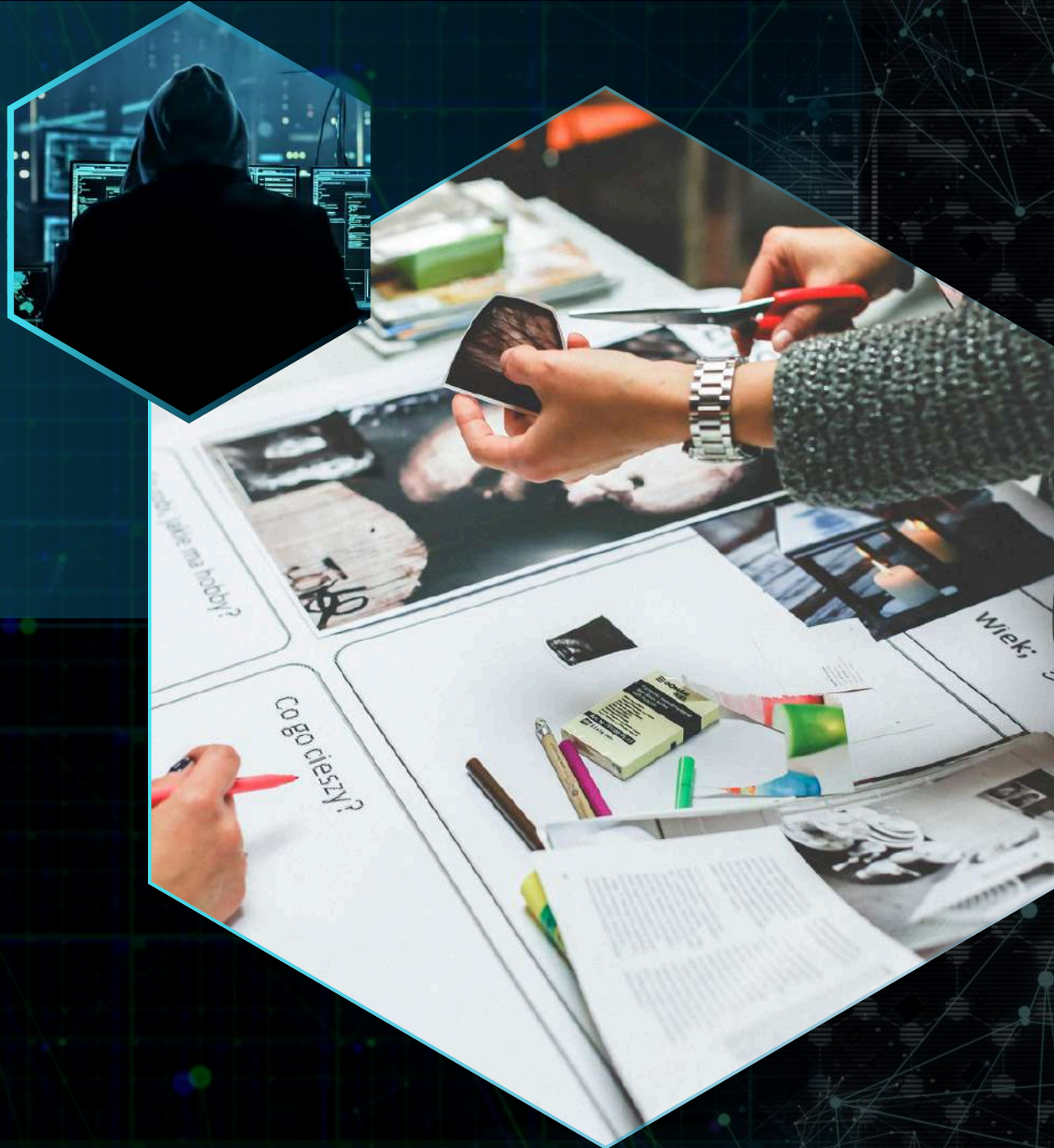
Under the supervision of:

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INTRODUCTION

- Web-based interactive dashboard
- Converts Excel data into dynamic, interactive visuals
- Efficient data storage and management using SQL
- AI-driven trend analysis for deeper insights
- Enhanced data visualization for better decision-making
- Simplifies complex data for accessibility and action



OBJECTIVES

- Develop a flexible dashboard that supports any Excel file.
- Enable interactive data visualization.
- Implement user authentication and data storage.
- Utilize AI for trend detection and insights.
- Provide export and notification features

PROBLEM STATEMENT

- Many users struggle with analyzing raw data.
- Existing tools require manual configuration.
- Data storage and access are often not user-friendly.
- Lack of AI-driven insights in traditional dashboards.
- No simple, automated solution for data visualization.



METHODOLOGY

FRONTEND

React.js for
UI & user
interaction

BACKEND

Flask for data
processing
and API
integration.

DATABASE

MySQL for
data storage.

VISUALIZATION

Plotly, Chart.js
for dynamic
charts.

AI TREND DETECTION

Linear
regression for
insights.

EXPECTED OUTCOME



1. A fully functional, user-friendly dashboard.
2. Automatic visualization of uploaded data.
3. AI-based trend detection for deeper insights
4. Email notifications and PDF export support.

APPLICATIONS



- Finance & Budgeting: Analyzing income and expenses.
- Education: Student performance tracking.
- Business Analytics: Sales and revenue forecasting.
- Healthcare: Patient data trend analysis.
- Research & Development: Statistical insights.

CHALLENGES & LIMITATIONS

1. Handling large datasets efficiently.
2. Ensuring real-time performance.
3. AI trend detection may require more data.
4. User adoption and ease of use.

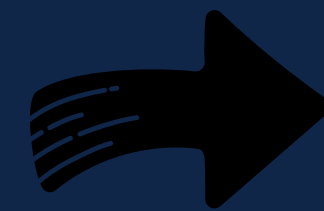
CONCLUSION

- Edash provides an innovative, automated data visualization tool.
- Solves key problems related to Excel data analysis.
- AI-driven insights make data interpretation easier.
- The system is scalable, secure, and user-friendly.
- Can be extended to various industries.

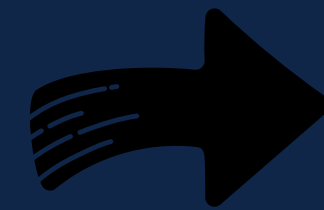




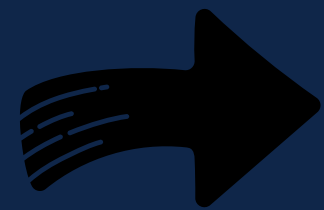
REFERENCES



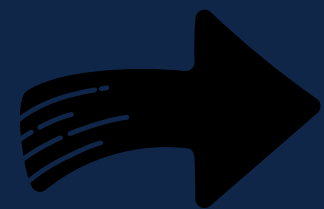
Python Flask Documentation



React.js Official Docs



MySQL Guides



AI & Data Visualization Research Papers

THANK YOU

