



Faculty of Sciences of
Bizerte



Republic of Tunisia
Ministry of Higher Education
and Scientific Research

University of Carthage



Computer Science
Department

End of Studies Project Report

For the obtention of a National Engineering Diploma

Track: Software Engineering and Data Engineering

Title:

PLAN GENIE AI

Intelligent Task & Event Management Platform

Powered by Advanced NLP and Speech Recognition

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Realised within SFM



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Dedication

*To my family and mentors,
whose support made this possible.*

— *Yassine Jedidi*

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Introduction

In today's busy world, managing tasks and events effectively is very important for both personal and work productivity. Traditional ways of managing tasks and events are often slow, make mistakes, and don't adapt to what users prefer.

This project introduces **Plan Genie AI**, a smart task and event management platform that uses artificial intelligence to change how people and organizations plan, organize, and track their activities. The system uses Natural Language Processing (NLP), speech recognition, and data analysis to provide a smooth, intelligent, and easy-to-use experience.

Main Goals:

- Build an AI platform that can understand and process natural language for creating tasks and planning events
- Add speech-to-text features to allow voice-based task and event management
- Provide performance analytics and visualization tools
- Ensure data security and privacy protection
- Make a responsive application that works on different devices

The project uses modern technologies including React.js for the frontend, Node.js and Python FastAPI for backend services, PostgreSQL for data storage, and Hugging Face Transformers for advanced NLP features. The system can process multiple languages, extract information automatically, and provide detailed performance analytics through interactive charts.

This report shows the complete development process of Plan Genie AI, from initial idea and requirements through design, building, testing, and deployment. It demonstrates how artificial intelligence can be used to solve real productivity problems while maintaining good user experience and data security.