



**JAZAN UNIVERSITY**

*College of Engineering & Computer Science*

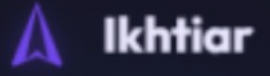
*Department of Information Technology*

*Graduation Projects*

*2025-26 First Semester*



# Ikhtiar: A WEB-BASED RECOMMENDATION PLATFORM FOR TECHNOLOGY MAJORS



Supervisor:

Mr. Khaled Hassan Alsenjlawi

Group Members:

- Saud Ahmed Kulaiby
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First Position in Project Day

## Abstract

**Ikhtiar** (اختيار) is a bilingual web platform that helps students choose the most suitable technology major—such as Cybersecurity, Computer Science, AI, or Networks—based on their interests and abilities. It uses a structured questionnaire and a clear scoring system to provide personalized recommendations. The platform is built with HTML, CSS, and JavaScript, with modular scripts for UI, authentication, data handling, and language switching. It uses Supabase for secure login and data storage. Students can sign in, complete a survey, and receive ranked major suggestions along with details on skills, courses, and career paths. The system is flexible, privacy-aware, and designed for future AI integration, aiming to simplify decision-making and improve career alignment.

# SMART TOURISM MOBILE APPLICATION



Supervisor:

Mr. Syed Ziauddin

Group Members:

- Ali Maimoon Modaffar
- Abdulrahman Abdullah
- Jehad Mujahed Ali
- Jawad Hamed Abualgasem

Second Position in Project Day

## Abstract

**Smart Tourism** is a Flutter-based mobile app that helps users discover nearby attractions in Saudi cities like Jazan, Jeddah, and Riyadh. It uses GPS to detect the user's location and show relevant places, with options to search, filter by category, and view details such as descriptions, ratings, and distance. Users can open locations in Google Maps, save favorites, and submit reviews. The app highlights popular places based on ratings and supports real-time updates using Firebase Authentication and Cloud Firestore for secure login and data storage. It also includes location-based notifications to suggest nearby attractions. The system is scalable, user-friendly, and can be expanded with more cities, languages, and personalized features.



# LEARNING MANAGMENT SYSTEM

Supervisor:

Dr. John Martin

Group Members:

- Loai Habib
- Yzeed Madkhal
- Ziyad Khawaji
- Abdueleah Rajhi

Third Position in Project Day

## Abstract

The Learning Management System (LMS) is a web-based platform designed to facilitate online learning and course management. It provides educators with tools to create, manage, and deliver course content, while offering students a centralized platform to access resources, submit assignments, and track their progress. The system is developed using modern technologies to ensure scalability, usability, and security. Furthermore, the application addresses the growing demand for flexible education by bridging the gap between physical classrooms and digital environments. By integrating real-time communication channels, automated assessment features, and robust data analytics, the system aims to streamline administrative overhead and enhance the pedagogical experience. The architectural design prioritizes data integrity and responsive user interfaces, ensuring a seamless educational journey for users across various devices. Ultimately, this project seeks to deliver a comprehensive solution that adapts to the evolving needs of academic institutions and remote learners alike.

## HOME SERVICES MARKETPLACE FOR SKILLED PROFESSIONALS

Supervisor:

Dr. Mohammed Eltahir

Group Members:

- Loai Habib
- Yzeed Madkhal
- Ziyad Khawaji
- Abdueleah Rajhi

### Abstract

**Home Services Marketplace** is a mobile app that connects users with verified skilled professionals for services like plumbing, electrical work, carpentry, and cleaning. Users can search, filter, and book providers based on location, ratings, and availability, while also communicating directly with them. Firebase (Realtime Database, Storage, and Authentication) for real-time data, secure image handling, and user management. Features like ratings, reviews, and notifications ensure trust, transparency, and smooth service tracking. Overall, the platform simplifies finding reliable professionals, improves booking efficiency, and provides a scalable, user-friendly solution for home services.

## STUDENT GUIDE (StuGuide)

Supervisor:

Dr. Hassan Jari

Group Members:

- Yahya Ali Majrashi
- Dhaifallah Hamed Alghamdi
- Mohammed Ahmed Mashali
- Ahmad Ali Ashrah

## Abstract

**StuGuide** is a web platform developed by IT students at Jazan University to support students in their academic journey. It provides a centralized place for subject summaries, learning resources, major guidance, student activities, and important deadlines. The platform also enables communication with academic advisers and offers information on training opportunities. Overall, StuGuide helps students stay informed, manage their studies effectively, and improve their academic performance.

# AI-POWERED TRAFFIC LIGHT SYSTEM

Supervisor:

Dr. Hassan Jari

Group Members:

- Abdulmalek Alfaifi
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- Muhammad Hamdi
- Shadi Moharrak

## Abstract

This research addresses traffic congestion in Jazan by proposing a **rule-based adaptive traffic signal system** that adjusts green light timing based on real-time traffic conditions. A Python simulation was used to test different traffic scenarios and compare the system with traditional fixed-time signals. Results showed that the adaptive approach improves traffic flow, increases vehicle throughput, and reduces congestion. The study concludes that this method is practical, efficient, scalable, and suitable for future real-world implementation.

## WEB DESIGN ASSISTANT PLATFORM USING AI

### Abstract

Supervisor:

Mr. Aqeel Musawid Eshwy

Group Members:

- Samer Ali Tayab
- Saleh Ali Alkhamsan
- Meshal Almutairi
- Saleh Alaqidi

The Web Design Assistant Platform Using AI enables merchants to rapidly create and customize online storefronts. Merchants authenticate, then use a setup page to define a store name, upload a logo, and select theme options (top-bar color, gradient, background color or image). The setup page features an AI Assistant that can be invoked via an “AI Assistant” button. When invoked, the assistant proposes store names, suggests a top-bar color and gradient, and can return image or GIF suggestions appropriate to the merchant’s brand name. The assistant returns an option set the merchant may accept, change, or cancel. The platform stores its AIMLAPI key in a local api.env file under developer control. A merchant dashboard provides product management, catalog import, customer and ticket handling, and simple store analytics. An admin panel manages the global catalog and platform-wide oversight. The prototype demonstrates practical design assistance integrated into the merchant workflow and provides a solid foundation for future production enhancements.

# BREAST CANCER CLASSIFICATION USING DEEP LEARNING (CNN)

Supervisor:

Dr. Hamdan Alshehri

Group Members:

- Osamh Abdu Osis
- Moaaz Amin Bakari
- Jubran Yahya Sahli
- Saleh Alaqidi

## Abstract

Breast cancer is a disease in which abnormal breast cells grow out of control and form tumours. If left unchecked, the tumours can spread throughout the body and become fatal. Early and accurate detection is crucial for effective treatment. Traditional diagnostic methods, however, are often slow, labor-intensive, and prone to human error. With the increasing amount of clinical information available, automated and intelligent diagnostic systems have become essential. This study proposes a breast cancer classification system using deep learning, specifically Convolutional Neural Networks (CNNs), to distinguish between benign and malignant breast tissue images. By analyzing large datasets and automatically extracting relevant features, the system aims to improve diagnostic accuracy, reduce errors, and assist healthcare professionals in making informed decisions. The results demonstrate the potential of integrating deep learning into medical imaging to facilitate early detection and improve clinical outcomes.

## **SafeSearch Mobile: AN ONLINE MISSING PERSONS REPORTING AND INVESTIGATION PORTAL IN SAUDI ARABIA**

Supervisor:

Dr. Hussein Rajab Abdullah

Group Members:

- Idris Ibrahim Alameer
- Yahya Jarrah
- Naif Mohammed Twhari
- Abdulaziz Ahmed Khubrani

### **Abstract**

Missing persons cases pose significant challenges for communities and law enforcement agencies worldwide. In Saudi Arabia, these challenges are compounded by rapid urbanization, changing demographics, and the increasing complexity of social dynamics. SafeSearch Mobile is an innovative, cross-platform mobile application designed to streamline the process of reporting and investigating missing persons cases. Leveraging the power of Flutter, Dart, and Firebase's robust suite of services, this platform offers real-time data synchronization, secure authentication, and multimedia reporting capabilities. The application not only enables quick and efficient reporting by citizens but also facilitates active collaboration between the community and law enforcement agencies. Through geolocation tagging, multimedia uploads, and advanced search functionalities, SafeSearch Mobile aims to reduce reporting delays, enhance situational awareness, and ultimately improve the efficiency and outcomes of missing persons investigations.

## FACIAL ID SYSTEM

### Abstract

In alignment with Saudi Arabia's Vision 2030, our project, Facial ID System, represents a step forward in the Kingdom's journey toward innovation and technological advancement. This system utilizes state-of-the-art facial recognition technology to enable real-time identification, offering a modern solution to identity verification processes across various government sectors such as security, border control, and public services. The project focuses on addressing the challenges of accurate and instantaneous identification in dynamic environments. By integrating advanced machine learning and facial analysis techniques, our system overcomes obstacles such as lighting variations, occlusions, and changes in appearance, ensuring consistent and reliable performance. As Saudi Arabia progresses toward Vision 2030, this project exemplifies our contribution to the vision's goals of modernization, efficiency, and digital transformation. By streamlining processes, enhancing security, and promoting technological innovation, our project supports the Kingdom's ambition to build a safer, smarter, and more efficient future.

Supervisor:

Dr. Nawaf Almolhis

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- Ahmed Mohammed Bosli
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