

Web Development

- 1. Moroccan Tourism Guide Platform**
 - A dynamic website showcasing Moroccan tourist destinations with booking integrations.
 - Tech Stack: Django, PostgreSQL, React, Mapbox API.
- 2. Online Freelance Marketplace**
 - Develop a platform connecting freelancers with clients, featuring profiles, messaging, and a payment gateway.
 - Tech Stack: Laravel, Vue.js, Stripe API, MySQL
- 3. AI-Powered Resume Builder**
 - Create a resume builder that generates optimized resumes using AI-based suggestions.
 - Tech Stack: React.js, Node.js, OpenAI API, MongoDB
- 4. Event Management System**
 - Build a web app for creating, managing, and ticketing events with real-time updates.
 - Tech Stack: Django, PostgreSQL, Vue.js
- 5. Real Estate Listing Platform**
 - Develop a property listing website with filters, 3D views, and virtual tours.
 - Tech Stack: React, Firebase, Google Maps API
- 6. Crowdfunding Platform**
 - A Kickstarter-style web app for funding projects through donations.
 - Tech Stack: Laravel, Stripe API, Vue.js, MySQL
- 7. Smart Portfolio Builder**
 - Generate a dynamic portfolio website based on user input and templates.
 - Tech Stack: Next.js, TailwindCSS, Node.js
- 8. AI-Based Chatbot for Customer Support**
 - Implement a chatbot that assists customers with automated responses.
 - Tech Stack: Python, Flask, TensorFlow, React.js
- 9. Personal Finance Tracker**
 - Create a web app to track expenses, set budgets, and generate reports.
 - Tech Stack: Django, PostgreSQL, Chart.js
- 10. Job Portal with AI Matching**
 - A job search website where AI suggests relevant jobs based on resumes.
 - Tech Stack: Next.js, Node.js, OpenAI API, MongoDB

Mobile Development

- 1. Smart Grocery List App**
 - A mobile app that suggests grocery items based on user preferences and history.

- Tech Stack: React Native, Firebase, SQLite
- 2. AI Fitness Coach**
 - An app that analyzes workout movements and provides recommendations.
 - Tech Stack: TensorFlow Lite, Flutter, Firebase
- 3. Smart Expense Manager**
 - Track daily expenses with automated categorization and analytics.
 - Tech Stack: Kotlin, Room Database, Jetpack Compose
- 4. Online Tutoring App**
 - Connect students with tutors through real-time video sessions.
 - Tech Stack: React Native, WebRTC, Firebase
- 5. Mental Health Tracker**
 - Monitor mental well-being and provide self-care suggestions.
 - Tech Stack: Flutter, Firebase, NLP
- 6. AR-Based Moroccan Heritage Explorer**
 - Augmented Reality app to explore Moroccan historical sites via 3D models.
 - Tech Stack: Unity, ARCore/ARKit, C#.
- 7. Local Artisan Marketplace**
 - Cross-platform app connecting Moroccan artisans with global buyers.
 - Tech Stack: React Native, Node.js, Stripe API.

Machine Learning

- 1. Handwritten Digit Recognition**
 - Develop a model to recognize handwritten digits using deep learning.
 - Tech Stack: Python, TensorFlow, OpenCV
- 2. AI-Powered Chatbot**
 - Build a chatbot capable of answering queries using NLP.
 - Tech Stack: Python, NLTK, Flask, TensorFlow
- 3. Facial Emotion Detection**
 - Detect emotions from images and categorize them into different moods.
 - Tech Stack: Python, OpenCV, Keras
- 4. Spam Email Classifier**
 - Identify spam emails using NLP and machine learning techniques.
 - Tech Stack: Python, scikit-learn, Flask
- 5. Credit Card Fraud Detection**
 - Detect fraudulent transactions using anomaly detection.
 - Tech Stack: Python, Pandas, Scikit-learn
- 6. Smart Irrigation System with Predictive Analytics**
 - ML model predicting water needs for crops using weather and soil data.
 - Tech Stack: Python, Scikit-learn, IoT sensors, Flask.

Cybersecurity

1. Intrusion Detection System (IDS)

- Monitors network traffic for suspicious activity.
- Tech Stack: Python, Snort, Wireshark

2. Phishing Detection Using Machine Learning

- Identifies phishing websites based on URLs and page content.
- Tech Stack: Python, TensorFlow, Selenium

3. Blockchain-Based Voting System

- Ensures transparency in voting using blockchain.
- Tech Stack: Solidity, React, Node.js

4. AI-Based Malware Detection System

- Analyzes system logs to detect potential malware.
- Tech Stack: Python, Scikit-learn, TensorFlow

Data Science

1. Customer Segmentation for E-Commerce

- Classify customers based on behavior patterns.
- Tech Stack: Python, K-Means Clustering

2. Fake News Detection System

- Determines whether news articles are fake or legitimate.
- Tech Stack: Python, TensorFlow, NLTK

3. Social Media Sentiment Analysis

- Analyzes public sentiment on social media.
- Tech Stack: Python, Tweepy, NLTK

4. Fraud Detection for Mobile Payments

- Anomaly detection model for mobile transactions.
- Tech Stack: Python, Scikit-learn, XGBoost, Tableau.

Cloud Computing

1. Serverless E-Commerce Website

- Build an online store using serverless computing.
- Tech Stack: AWS Lambda, DynamoDB, React

2. Cloud-Based Inventory Management System

- Manage inventory online with real-time updates.
- Tech Stack: Firebase, Node.js, Vue.js

3. Serverless Agri-Tech IoT Platform

- Cloud-based system for monitoring crop health via IoT sensors.
- Tech Stack: AWS Lambda, AWS IoT Core, Python, DynamoDB.

4. Disaster Recovery Solution for SMEs

- Automated backup and recovery system using Azure/AWS.
- Tech Stack: Azure Site Recovery, AWS S3, Terraform.

DevOps

1. CI/CD Pipeline for Web Applications

- Automate deployment using Jenkins, Docker, Kubernetes.

- Tech Stack: Jenkins, Docker, Kubernetes

2. Monitoring and Logging System

- Collects and visualizes logs for debugging.
- Tech Stack: ELK Stack, Prometheus

3. Serverless Deployment Automation

- Automates deployment of serverless apps.
- Tech Stack: AWS Lambda, Terraform

4. Infrastructure as Code (IaC) for University Labs

- Manage virtual labs using Terraform and Ansible.
- Tech Stack: Terraform, Ansible, AWS/GCP.