**Information Technology Institute**

**PROFESSIONAL TRAINING PROGRAM**

**2021/2022**

**Open Source Application Development Track Overview**

People Develop Countries…
We Develop People

# Open Source Application Development

## DESCRIPTION

ITI – (Open Source Application Development) Specialization - is a product based program that will empower you to learn how to develop frontend and backend highly scalable applications

## WHO MAY APPLY

All University Graduates, no special prerequisites just having a first degree from a recognized university or institute of higher education.

## TRACK DURATION

1404 Hours about 9 months (learning and project ).

## DELIVERY APPROACH

Blended between Self-paced, Synchronous Learning and Guided Practices with a Project Based Focused Journey.

## BEFORE YOU APPLY

**Candidates will have to complete the following prerequisite courses to join our program:**
**-Programing Concepts:**
**https://www.coursera.org/specializations/c-programming**
**https://www.tutorialspoint.com/cprogramming/index.html**
**https://www.tutorialspoint.com/cplusplus/index.html**
**-Database fundamentals:**
**https://maharatech.gov.eg/enrol/index.php?id=740**
**-Linux fundamentals**
**https://www.coursera.org/learn/fundamentals-of-red-hat-enterprise-linux**
**-Web Design Fundamentals**
**https://www.coursera.org/specializations/web-design?**
**https://maharatech.gov.eg/course/index.php?categoryid=13**

# Open Source Application Development

## GRADUATE PROFILES

- FULL STACK WEB DEVELOPER
- BACKEND DEVELOPER
- MEAN STACK DEVELOPER
- ODOO DEVELOPER

## REQUIRED TOOLS

Laptop preferably core i7 with16 GB RAM and Linux distribution operating system.

## TRACK PRACTICES

Candidates may work together in one of the following Suggested Projects:

- Building highly scalable web application
  - E-commerce application
  - Social platforms
  - Enterprise ERP systems

# Open Source Application Development

## OVERALL LEARNING JOURNEY OUTLINE

### Fundamental Courses

- Agile Software Development Methodologies
- Client-Side Technologies
- Computer Network Fundamentals
- Data Structures and Algorithms
- Database Fundamentals
- HTML5 & CSS3 123
- Introduction to Programming
- Introduction to Software Engineering
- Object-Oriented Programming Concepts
- Operating Systems Fundamentals
- XML Fundamentals

### Core Courses

- Angular
- Apache Web Server
- Application Security Basics
- Bash Shell Script
- Block Chain Fundamentals
- Cloud Computing and Dockers Fundamentals
- Cross Platform Mobile Development
- CSS Frameworks
- Design Patterns
- Developing Applications using Java Programming
- JavaScript Libraries
- MongoDB
- MySQL Database
- Node.js
- Open Source ERP Systems
- PHP CMSs
- PHP Programming
- PHP Web Frameworks
- Push and Pull Technologies
- Python Programming
- ReactJS
- Red Hat System Administration I
- Red Hat System Administration II
- Ruby Programming
- Unit & Automated Testing
- Version Control Systems
- VueJS
- Web Services

### Soft Skills Courses

- Communication Essentials for Professionals
- High Impact Presentations
- Job Seeking Skills
- Professional Demeanor (Workshop)
- Progressive Teamwork (Workshop)

## OTHER USEFUL INFORMATION

Track Graduates will be qualified to work as software engineers with different technologies at reputable companies as (Vodafone, Orange, Etisalat, Valeo…)