

Route

# BACK-END DEVELOPMENT DIPLOMA (120 HOURS)



## Instructors



We have more than 50 qualified Instructor and trainers we are able to deliver high quality training programs to our students



## Students

We trained more than 10,000 plus students and helped them to start their tech career through our expert career guidance counselor .

## Branches



today we have 5 branches across Cairo, Giza and Alexandria .

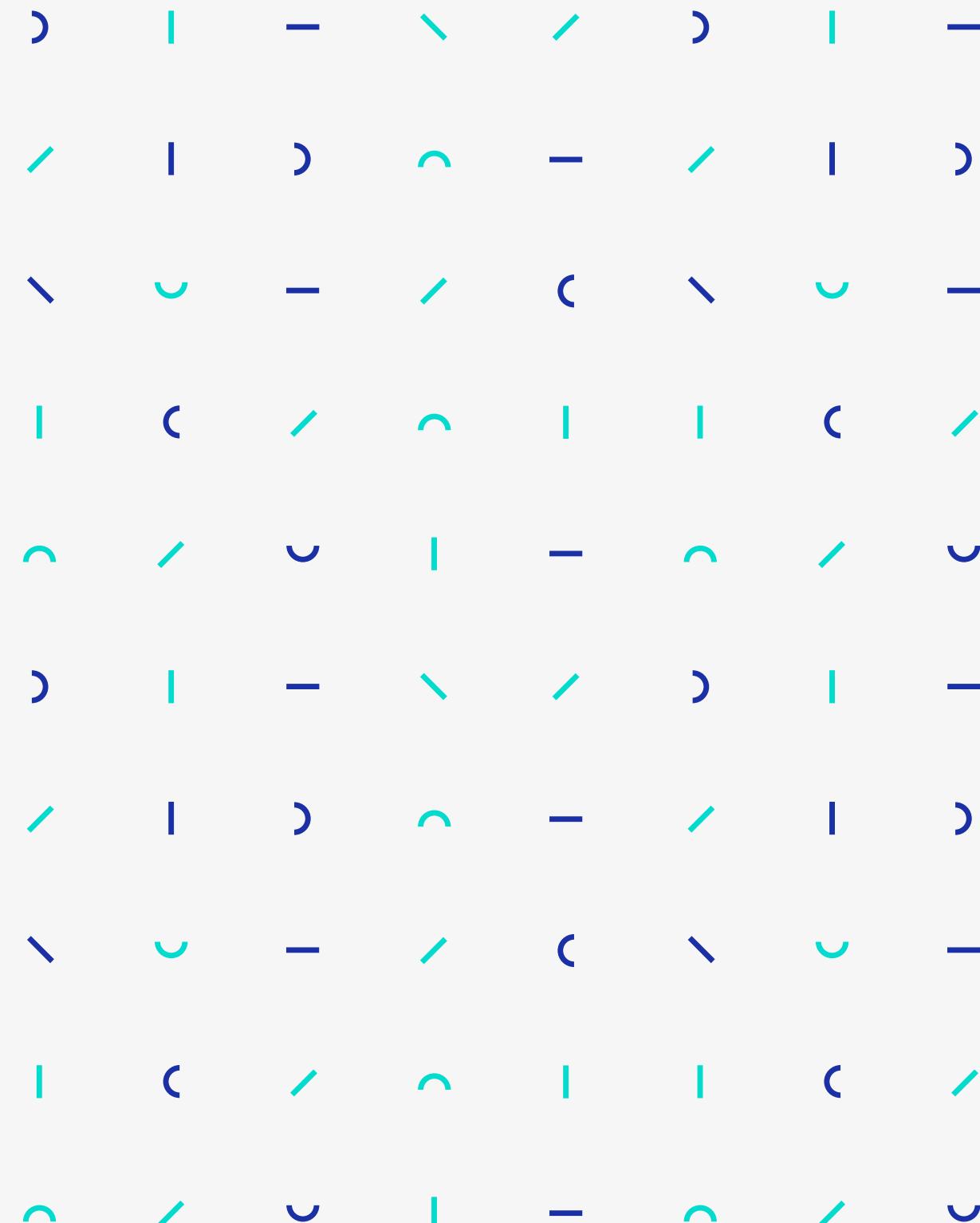


## programs

Our programs provide more than 20 tech disciplines that cover a wide technological spectrum including for example but not limited to data science to web development and UX Design

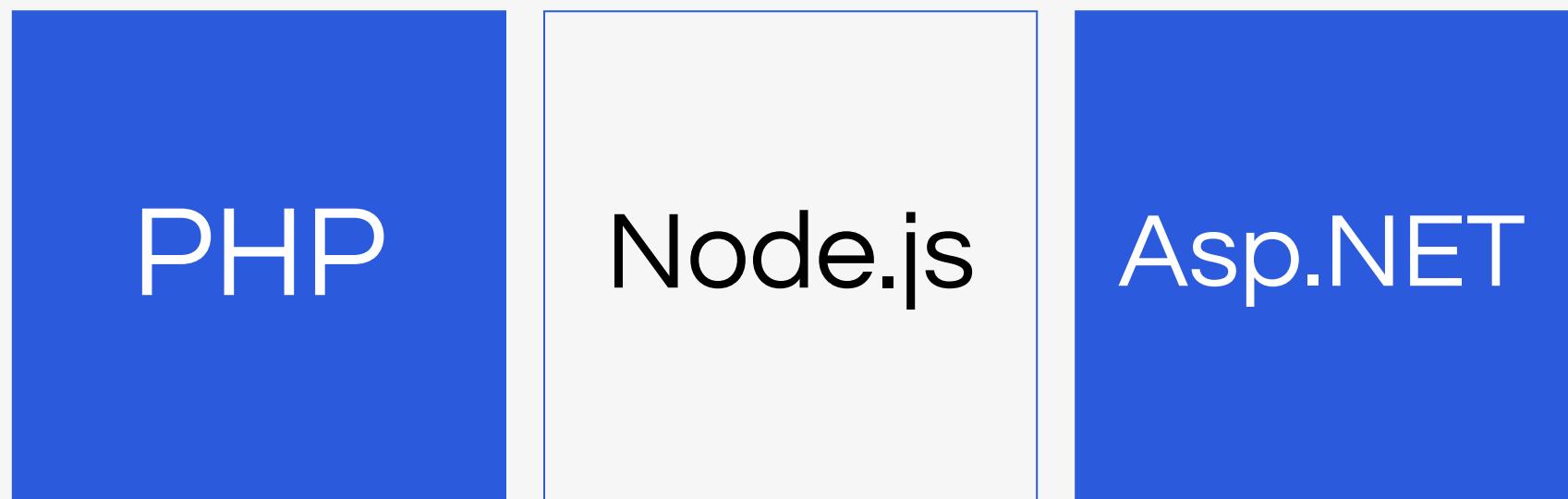


# Our Education Programs



- 01 Professional Mentors
- 02 Constantly Updated
- 03 Practical Projects
- 04 Interactive workshops

# Back-end development (120 hours)



# PHP & Laravel Content

## 1- PHP

### Variables

Conditions (if,  
switch  
,match)

Built in  
methods

File uploads

Backend  
intro

Php data  
types

Array (Numeric  
-assosiative -  
multidimitional)

·Pass by value ,  
pass by refance

File Validation

Php files

·Constants

Loops(for ,  
while, dowhile ,  
foreach)

Requests(GET  
,POST)

·Session  
·Cookies

Php intro

Operators

Functions

Form  
validations

·File inclusion  
·exam

## 2- MYSQL

·Database intro

·ERD entity

·Relationships

·Case study  
(erd  
relationship)

Create  
database

Create  
tables

CRUD  
operations

Aggregation  
functions

Array (Numeric  
–assosiative -  
multidimitional)

Grouping

Operations

·Orders ,  
limit ,offset

·Subquires

·Joins

·Pivote table  
·Alter table

·Index  
·View

·Shell  
,workbench  
,cmd

·Trigger  
· Stored  
procedure

·Events  
API

## 3-PHP WITH MYSQL

·Connecting to php  
with mysql

project (Blog )

Authentication

Localization

Pagination

Authorization

E-commerce Project  
with mintor

# 4-PHP OOP

Oop intro

Class – object

Properites –  
methods

•Construct –  
destruct

Inheritance

•Access  
modifiers

Abstract  
class

Interface

OOP  
principles

SOLID  
principles

Traits

Static

Const

final

Methodchaining

Namespace

•Aggregation  
–  
composition

•Create (Class DB  
– Class Request –  
Class Session -  
Class Validation)

•PDO  
•Project ToDoList  
(with oop PDO )  
.Project with mitor

## 5- MVC

Routing

Models

·Session

·Elquent  
model

## 6- Laravel

view

·Query  
builder

·Layout

·File upload

Laravel install

Controller

·CRUD  
Operations

·Assets

·Model  
relationships

Laravel mvc  
structure

Migration

·Laravel  
Validation

·Pagination

·Route name,  
group

·Seeders –  
factories –  
tinker

Middleware

websocket

Swagger

E-commerce  
project

Authantication

·API  
resources

Social  
media login

Pusher

Project with  
mintor

Authorization

API  
Authantication

Email  
Verification

Paymob

SDLC

Agile

Wordpress

Docker

# Node.JS Content

JavaScript  
refresh

MVC

Validation  
(JOI)

Node js Basic

Express JS

Routers &  
Models

Middleware

Node with  
MySQL

ORM  
Sequelize

MongoDB

ODM  
mongoose

Authentication

Authorization

Async  
Requests

Rest API

Relation two ways  
using (mongoose)

Error Handling

File Uploads

Pagination

Sending email  
(G-mail & outlook)

Social media login  
using (G-mail)

CRON jobs & Create  
PDF & QR code

Deployment in  
real server

Templating  
engines (EJS)

# Node.JS Content

Sessions

Socket . IO

GraphQL

Introduction to Redis DB (Cashing)

Intro to Docker

Intro to NestJS

# ASP .NET Content

1-Database Design and Microsoft SQL Server:

Comment, DataTypes , Variables

How to Backup and Restore Database

SubQuery

Database Heirarchy

Relationship Rules

Logical Design - Entity Relationship Diagram (ERD)

DDL (Create- Alter-Drop- Wizard)

DQL - Select

Top

Union Family

Stored Procedures and Triggers

Physical Design (Mapping) - Database Schema

DML (Coding, Wizard)

Built-In Functions

View

User Defined Functions: (Scalar Function- Inline Table Function-Multi- statement table Function)

TCL (Transactions) and DCL (Permissions) & Index

# 2-C#

Dot Net  
Introduction

Object

String Formatting

Why String is  
Immutable

Nullable Types  
and Null  
Propagation  
Operator

Comments,  
Errors, Variable  
Declaration

Value Type  
Casting

Loop Statements  
(while - do while -  
for loop - foreach)

Deep Copy and  
Shallow Copy

Enum

Data Types (Value  
Type - Reference  
Type)

Operators and  
Operators  
Property

String Vs  
StringBuilder

Boxing and  
unboxing

Functions:  
(Passing Value Type  
Parameters - Passing  
ReferenceType  
Parameters - Passing  
By Out - Params)



# 3-OOP

Access Modifiers

Struct

Encapsulation

Indexer

Inheritance

Polymorphism  
[Overloading -  
Overriding]

Binding

Interface

SOLID Principles

Abstract [Class,  
Method, Property]

Operator  
Overloading

Enum

## 4- Advanced C#

Generics Constraints

List Methods

Anonymous Method  
and Lambda  
Expression

Generics

Non Generics  
Collections

Delegate

New Updates at  
Delegate in C# 10

Generics Vs Object  
(IComparable Vs  
Generic IComparable)

Generics  
Collections

Built-In Delegates  
[Predicate, Func,  
Action]

Event

# 5- LINQ

Anonymous  
Type

LINQ Operators

Implicit Typed  
Local Variable  
[Var, Dynamic]

What is LINQ

Extension  
Method

LINQ [Syntax -  
Execution Ways]

# 6-Entity Framework Core

EF Core  
Mapping  
Ways

Relationships  
Mapping

Eager Loading  
Vs Lazy Loading

Data  
Seeding

View Mapping

EF Core Power  
Tools

(One to One,  
One to Many,  
Many to Many)

Database  
First  
Approach

Dapper

Code First  
Approach

Migration

Inheritance  
Mapping

Run SQL Query  
From CSharp  
Code

BenchMark

# 7-ASP.Net MVC Project

Intro to  
ASP.NET

ASP.NET Projects  
(ASP MVC, Razor  
Pages, Web APIs)

.NET Core Vs  
.NET  
Framework

Project Architecture  
Pattern (3-Tiers  
Architecture)

Routing in  
ASP.NET  
MVC

Controllers,  
Actions,  
Views

Action  
Parameters  
Binding

Layout,  
\_ViewStart,  
\_ViewImport

Tag  
Helpers

Client-Side  
Validation

ViewData Vs  
 ViewBag Vs  
 TempData

Partial View

Generic  
Repository  
Pattern

Dependency  
Injection

Mapping

Unit of Work

Documents  
Uploader

Security  
(Authentication,  
Authorization)  
Using Identity



# 8-ASP.Net APIs Project(E- Commerce)

ASP.NET Web  
APIs Overview

Postman and  
Swagger  
Documentation

What are  
RESTful APIs?

Project Architecture  
Pattern (Onion  
Architecture)

Generic  
Repository

Products  
Module

Specification  
Design Pattern

Mapping Using  
AutoMapper

API Error  
Handling

API Paging,  
Filtering, Sorting  
& Searching

Redis

JWT Token  
Creation

Security  
(Authentication,  
Authorization)  
Using Identity

JWT Token  
Creation

Orders  
Module

Unit of Work

Payment  
Module

Caching

Deploying On  
IIS

## 9- Signal R

## 10 - Design Patterns

Creational DP [Singleton, Abstract Factory]

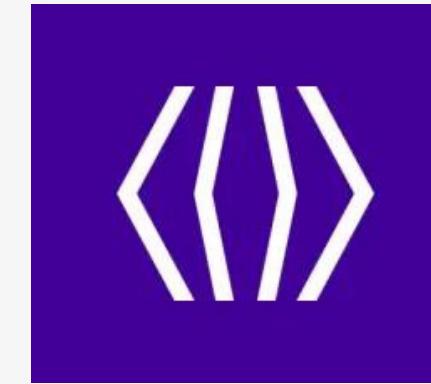
What are Design Patterns?

## 11 - Agile and Azure DevOps

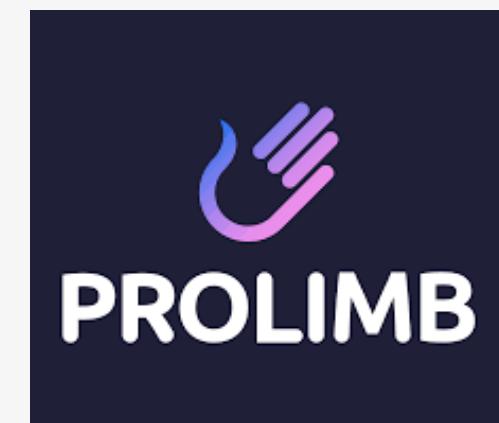
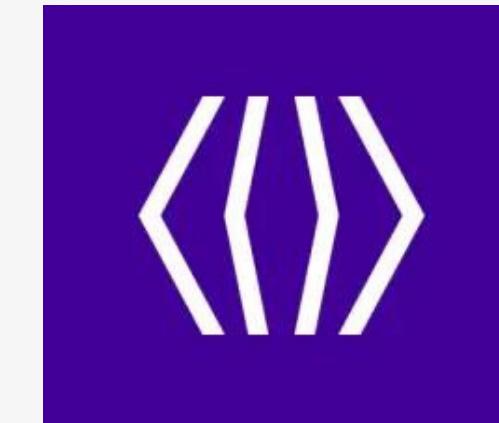
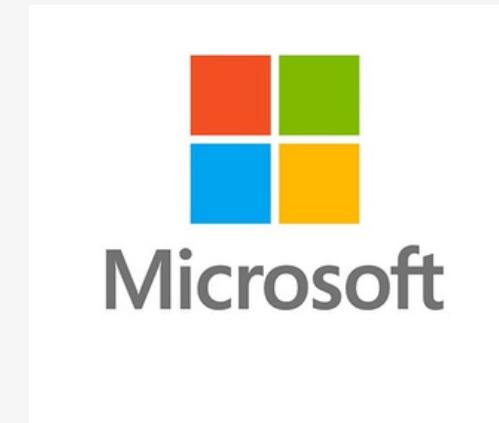
Behavioural DP [Strategy, Observer]

Structural DP [Decorator, Facade]

# Our Students worked for



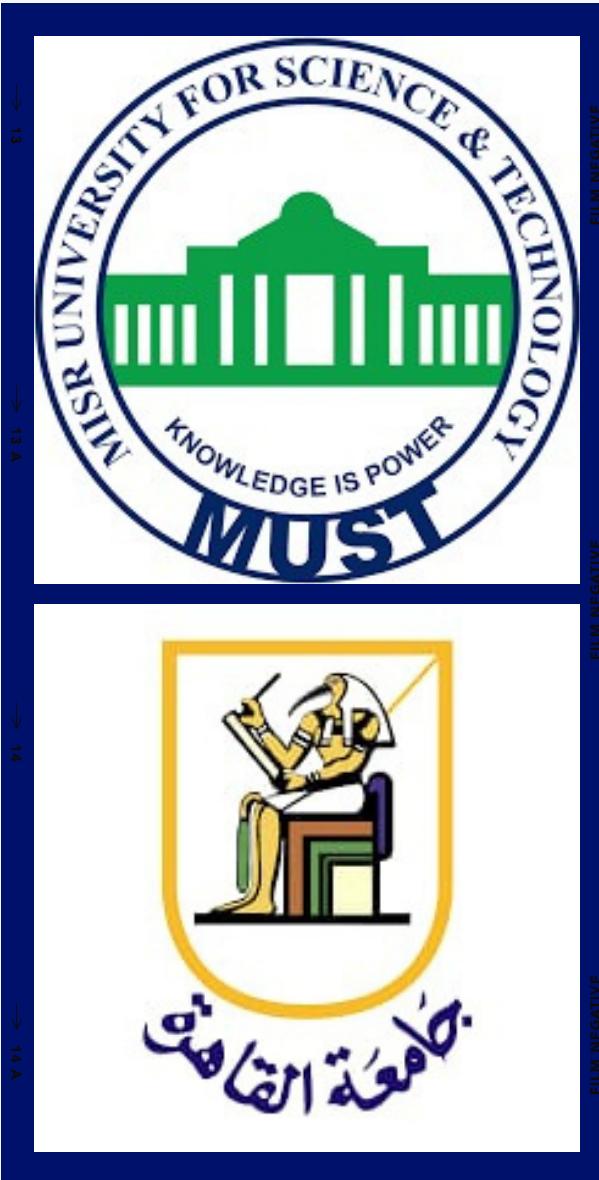
Our  
Instructors  
worked for



# Our Partners

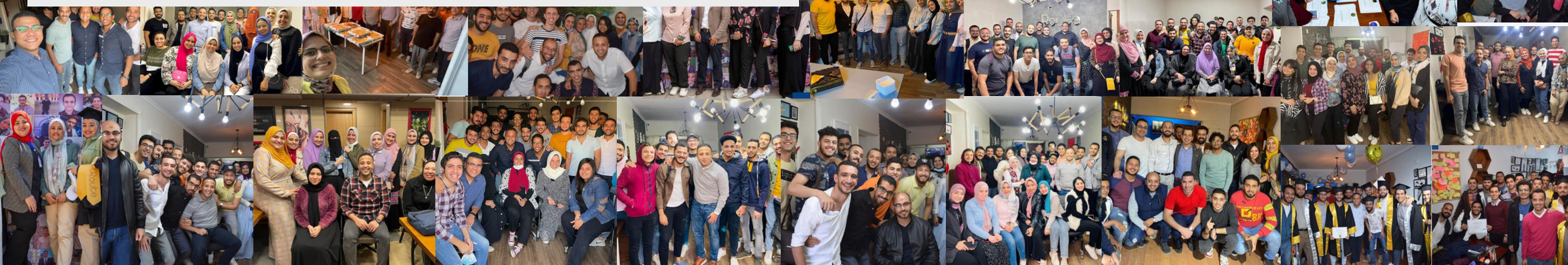


# Our University Training





# MORE THAN 10K STUDENTS

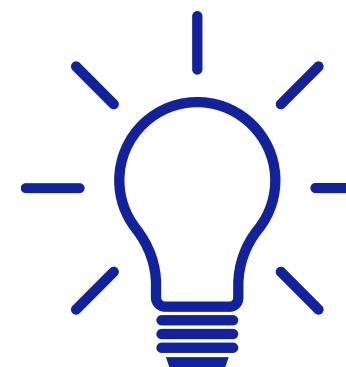


# Job Fair

Our Events

## Route Tech Summit

the opportunity to meet with corporate representatives of participating companies, and explore and apply to available job and internship opportunities.



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SEOUDI



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SEOUDI



Route

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SEOUDI

FMG DXC  
agency TECHNOLOGY

CV For Career  
Consultation

FMG DXC  
agency TECHNOLOGY

CV For Career  
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SUGAR BITES

CAREER180

talents arena

SUGAR BITES

CAREER180

talents arena

SUGAR BITES

CO  
EGYPT

Top Tech Talents

Route

CO  
EGYPT

Top Tech Talents

Route

CO  
EGYPT

elharefa  
الحريفة

FREELANCE YARD

WideBot  
وايد بوت

elharefa  
الحريفة

FREELANCE YARD

WideBot  
وايد بوت

elharefa  
الحريفة

# ROUTE TECH SUMMIT



ذیک یا بشمہندس واحشی و اللہ

7:01 PM

انهارده اول یوم full time job بعد شهر

تدريب نفس الشركه الحمد لله و الفضل

لیک و للبشمہندسہ ایہ و route عمتا و عاو

اقولك ان معايا فالشركه اكتر من حد من

route

7:02 PM

اشاء الله الف مليون مبروك يا هندسه

سلام عليكم

اخبار حضرتك آیة

Hossam unsent a message

نا قدمت في شركة (

## ک واتقیلت React Developer

# TRUST PROGRAMS

اولا السلام عليكم ثانيا انا عارفه انها  
جات متاخر بس لازم اقول كلمة حق انا  
اخد معاكم كورس فروندي اند انجولار و  
بعدين اخد جزء الرياكت و انا حاليا  
شغاله في شركة بقالى ٨ شهور و بجهز  
ورقى دلوقتى عشان اسافر اشتغل بره  
فشهادتى فيكى ديمى هتكون مجروحة  
انتوا اكتر مكان مندمتش انى روحته

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5rgen route academy



لَا شَاءَ اللّٰهُ

كانوا كويسيين بقي ولا ؟

ازيك يا هندسه عامل ايه واحشني والله  
انا الحمد لله ربنا كرماني بعد فضل ربنا  
وفضلك بشغل في شركتين وحبيت  
اشكرك والله يا هندسه ايفضل خيرك  
عليا لحد ما اموت

ا زيک يا باشم هندسى سسسىس  
حضرتك انا اشتغلت الحمد لله وده بفضل  
حضرتك في كورس الفرونت اند الائمة في  
الانترفيو مخرجتني خالص عن شرحك  
والحمد لله ربنا وفقني وقبلوني انا بس جاي  
اشكرك لاني بجد اتعلمت منك كتير اكتر

ماشاء الله الف مبروك يا عبده فرحتني جداً

3:44 PM ✓

Thanks  
can't wait to see you !

We're here to support you!  
Email us at [routeegypt@gmail.com](mailto:routeegypt@gmail.com)  
for comments or questions.