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# About Tech Edge

Tech Edge is a program designed to enhance the skills of individuals who are interested in entering or transitioning their careers into the IT industry. We offer four comprehensive programs that provide the necessary knowledge to prepare you for industry-recognized certifications. Our trainers, who possess over 25 years of industry experience, are experts in their respective fields.

# Who is this Program for?

This program is designed to cater to professional and graduating students who aspire to thrive in the IT industry. Its main objective is to equip participants with essential skills and knowledge necessary to excel in leading technologies and establish a successful career. The curriculum is carefully crafted to be dynamic and adaptive, consistently aligning with the evolving needs of the industry. By integrating a comprehensive blend of basic and emerging concepts, the courses aim to enhance participants' decision-making abilities, particularly in the areas of technology, data protection, and development. This empowers students to make well-informed and impactful choices as they pursue their professional goals.



# About the Program

Welcome to the Azure Mastery Course, your gateway to unlocking the boundless potential of Microsoft Azure, one of the world's leading cloud platforms. Our comprehensive program is carefully structured into three dynamic sections Fundamental, Developer, and Administrator, each meticulously designed to empower you with specialized skills and knowledge, enabling you to thrive in the ever-evolving world of cloud computing.

# Other Details

<b>Timings</b> Monday - Thursday (3 hours)  Saturday (5 hours)	Job Assist  Resume assistance, career mentoring and job portal access	Certified Trainers  Trainer with more than 25 years of experience in Cloud Computing	<b>Projects</b> 3 capstone projects
Total Students 25	<b>Mode</b> Online / Offline	<b>Duration</b> This part time program is for 2 months	<b>Deadline</b> Register before 30th September, 2023

# Capstone Project

Create a Video Subscription Application deployed on AWS Application Load Balancer with Auto Scaling, S3, Relational Database Service(RDS), VPC Components, Lambda, DynamoDB and CloudFront with Route 53

## Job Roles

- Cloud Architect
- AWS/Cloud Developer
- Cloud Engineer
- Software Engineer
- Data Engineer

### Fundamental

#### **Course Objective**

This course will provide foundational level knowledge on cloud concepts; core Azure services; and Azure management and governance features and tools.

#### Prerequisites

There are no prerequisites for taking this course. It is targeted at anyone that wants to learn more about Microsoft Azure.

#### **Skills Covered**

- Describe Cloud Concepts
- Core Solutions & Management Tools on Azure
- Identity, Governance, Privacy & Compliance Features
- Core Azure Services
- General Security and Network Security Features
- Azure Cost Management & Service Level Agreements

### Curriculum

#### **Module 1: Describe Cloud Concepts**

- Describe Cloud Computing
- Describe the benefits of using Cloud services
- Describe Cloud service types

# Module 2: Describe Azure Architectures and services

- Describe the core architectural components
- Describe azure compute and networking services
- Describe azure storage services
- Describe azure identity, access, and security

# Module 3: Describe Azure management and governance

- Describe Cost Management in Azure
- Describe features and tools in Azure for governance and compliance
- Describe feature and tools for managing and deploying Azure resources
- Describe monitoring tools in Azure

### Developer

#### **Course Objective**

Microsoft Azure Developer Associate (AZ-204) course helps you to get a deep understanding of how to develop solutions using Azure Infrastructure and Platform Compute services. The course also focuses on all the considerations that are necessary while building a highly scalable and available solution on the cloud.

#### Prerequisites

- · Foundational knowledge on Application Development
- · Fundamentals of Cloud Computing
- · Basic understanding of virtualization, networking & databases
- · Proficiency in using Visual Studio IDE, PowerShell, and Command-Line Interface
- · Coding experience in C# (.NET Framework)

#### **Skills Covered**

- Select an appropriate Compute and Storage solution
- Develop solutions that use Storage Tables/Cosmos DB/ Relational Database/Blob Storage
- Develop for Caching and Content Delivery solutions
- · Instrument solutions to support monitoring and logging
- · Create Web Apps, Mobile Apps and API Apps using PaaS
- Create App Service Logic App and Azure Functions (Serverless Compute)
- · Create solutions that use the Azure Kubernetes Service
- Develop Event-based and Message-based solutions
- Implement Authentication, Access control and Secure data solutions

### Curriculum

Module 1: Introduction to Azure laaS Compute Solutions

Module 2: Implementing Azure Batch Service and Disk Encryption

Module 3: Designing and Developing Applications That Use Containers

Module 4: Implementing Azure App Service Web Apps & Mobile Apps

Module 5: Implementing Azure App Service API Apps & Azure Functions

Module 6: Developing Solutions That Use Azure Table Storage and Cosmos DB

Module 7: Developing Solutions That Use Relational Database and Azure Blob Storage

Module 8: Implementing Authentication and Access Control In Azure

Module 9: Implementing Secure Data Solutions and Integrating Caching and CDN

Module 10: Instrument Monitoring, Logging and Scalability of Apps and Services

Module 11: Connecting to and Consuming Azure and Third-party Services

Module 12: Developing Event-based and Message-based Solutions in Azure

### Administrator

#### **Course Objective**

Microsoft Administrator: AZ-104 training is designed to help you prepare for the new Microsoft Certified: Azure Administrator Exam. You will learn to configure and manage storage, secure and monitor the cloud infrastructure. You will be able to effectively set up, deploy and scale Azure virtual me through robust implementations, implement advanced virtual networking and secure identities.

#### Prerequisites

- Work experience in IT Administration
- Fundamentals of Cloud Computing
- Basic understanding of Virtualization,
   Networking & Databases
- Proficiency in using PowerShell and Command-Line Interface

#### **Skills Covered**

- Manage Azure identities and governance
- · Implement and manage storage
- · Deploy and manage Azure compute resources
- Configure and manage virtual networking
- Monitor and maintain Azure resources

### Curriculum

Module 1: Managing Azure Subscriptions and Resource Groups

Module 2: Azure Virtual Networks and Network Security

Module 3: Salesforce Overview of Azure Virtual Machines

Module 4: Overview of Azure Storage Services

Module 5: Secure and Manage Azure Storage

Module 6: Configure Virtual Machines for High Availability

Module 7: Network Traffic Distribution and Connectivity

Module 8: Integrate On-premises Network with Azure Virtual Network

Module 9: Azure Inter-site VPN Connectivity Methods

Module 10: Monitoring and Access Management for Cloud Resources

Module 11: Manage Azure Active Directory (AD)

Module 12: Implementing and Managing Hybrid Identities

### Offline Location

Susan J. Wallace Community Centre G8M7+3JP, Nansen Ave, Freeport, Bahamas



# About the Program

This program offers a comprehensive compilation of three segmented training models, each focusing on a crucial aspect of the IT industry: Cyber Security, Networking, and IT Infrastructure. By combining these three models, participants gain a holistic understanding of these vital domains. Each training model plays a pivotal role in its own right, ensuring participants develop a well-rounded skill set and knowledge base. From acquiring expertise in Cyber Security to mastering Networking and IT Infrastructure, this program equips participants with the essential capabilities needed to thrive in the dynamic field of IT.

## Other Details

<b>Timings</b> Monday - Thursday (3 hours)  Saturday (5 hours)	Job Assist  Resume assistance, career mentoring and job portal access	Certified Trainers  Trainer with more than 25 years of experience in Cloud Computing	Projects 4 Capstone projects to make you industry ready
Total Students 25	<b>Mode</b> Online / Offline	<b>Duration</b> This part time program is for 2 months	<b>Deadline</b> Register before 30th September, 2023

# Capstone Project

- Packet Sniffing (Network Traffic Analysis)
- Website Scrapper
- Key Logging
- Bug Bounties

## Cyber Security

#### **Course Objective**

Learners need to possess an undergraduate degree or a high school diploma. Having prior knowledge of networking, operating systems, and programming languages such as Python, C, or Java can be beneficial.

#### Prerequisites

Learners need to possess an undergraduate degree or a high school diploma. Having prior knowledge of networking, operating systems, and programming languages such as Python, C, or Java can be beneficial.

#### **Skills Covered**

- Reconnaissance and Footprinting
- Malware Analysis
- Trojans backdoors and countermeasures
- Wireless Network Security
- IDS, firewalls and honeypots
- Mobile, IoT and Web Security
- Vulnerability Assessment

#### Job Roles

- Information Security Officer
- Vulnerability Analyst
- Network Security Engineer
- Security Analyst
- Penetration Testing
- IT Security Administration
- Security Audit
- System Security
- Network Security Solution Architect
- Security Consulting
- Security Compliance

### Curriculum

#### Module 1: Introduction to Ethical Hacking

- Elements of Information Security
- Cyber Kill Chain Methodology
- MITRE ATT&CK Framework
- Hacker Classes
- Ethical Hacking
- Information Assurance (IA)
- Risk Management
- Incident Management
- PCI DSS
- HIPPA
- SOX
- GDPR

Module 2: Footprinting and Reconnaissance

Module 3: Scanning Networks

Module 4: Enumeration

Module 5: Vulnerability Analysis

Module 6: System Hacking

**Module 7: Malware Threats** 

Module 8: Sniffing

Module 9: Social Engineering

Module 10: Denial-of-Service

Module 11: Session Hijacking

Module 12: Evading IDS, Firewalls, and

Honeypots

Module 13: Hacking Web Servers

Module 14: Hacking Web Applications

Module 15: SQL Injections

Module 16: Hacking Wireless Networks

Module 17: Hacking Mobile Platforms

Module 18: IoT Hacking & OT Hacking

Module 19: Cloud Computing

Module 20: Cryptography

## Networking Training Program

#### About the program

CompTIA's Network+ certification validates the knowledge and skills needed to troubleshoot, configure and manage both wired and wireless networks found in companies around the world. CompTIA Network+ certifies a professional-level understanding of emerging technologies including cloud and virtualization technologies.

#### **Course Objective**

This course is designed to enable the learner to describe the major networking technologies and systems of modern networks, and be able to configure, manage, and troubleshoot modern networks. This course covers the concepts of the Comptia Network+ coverage and would help prepare the learner for the same.

#### Prerequisites

CompTIA A+ and a minimum of 9-12 months of hands-on networking experience recommended.

#### **Skills Covered**

- · Identify basic network theory concepts and major network communications methods.
- · Describe bounded network media.
- · Identify unbounded network media.
- · Identify the major types of network implementations.
- · Identify TCP/IP addressing and data delivery methods.
- · Implement routing technologies.
- · Identify the major services deployed on TCP/IP networks.
- · Identify the infrastructure of a WAN implementation.
- · Identify the components used in cloud computing and virtualization.
- · Describe basic concepts related to network security.
- Prevent security breaches.
- · Respond to security incidents.
- · Identify the components of a remote network implementation.
- · Identify the tools, methods, and techniques used in managing a network.
- · Describe troubleshooting of issues on a network.

#### Job Roles

- Business Analyst
- Systems Administrator
- MSP Personnel
- Data Center Manager
- IT Server Technician
- Data Architect Network Security Specialist
- Server Administrator

### Curriculum

#### **Module 1: Local Area Networks**

Topologies and the OSI Model

- Key Features of Networks
- Network Topologies
- The OSI Model
- Physical Layer
- Data Link Layer
- Network Layer
- Transport Layer
- Upper LayersOSI Model Summary
- Labs
- VM Orientation Ethernet
- Transmission Media
- Media Access Control
- Broadcast Domains
- Ethernet Frames
- Ethernet Deployment Standards
- MAC Addressing
- Address Resolution Protocol (ARP) Packet Sniffers
- Labs
- Configuring Ethernet Networking Hubs, Bridges, and Switches
- Hubs and Bridges
- Switches
- Switch Interface Configuration
- Spanning Tree Protocol (STP)
- Power over Ethernet (PoE)

Module 2: IP Addressing

Module 3: Internetworking

Module 4: Applications and Security

Module 5: Operations and Infrastructure

## IT Infra – Training Program

#### About the program

ITIL 4 Foundation introduces an end-to-end operating model for the creation, delivery and continual improvement of technology-enabled products and services. ITIL 4 Foundation is for anyone who needs to understand the key concepts of IT and digital service delivery, and who is interested in helping their organization embrace the new service management culture. It is for professionals at the start of their ITIL 4 journey or people looking to update their existing ITIL knowledge.

#### Prerequisites

This ITIL V4 certification training course is best suited for IT executives, IT architects, operations managers, IT audit managers, IT planners and consultants, database administrators, ITSM trainers, service delivery professionals, quality analysts, application management and development teams, and IT managers. Obtaining the ITIL V4 foundation certification is available to both seasoned IT professionals and those fresh in their IT career. Learners need to possess an undergraduate degree or a high school diploma

#### **Skills Covered**

- · The ITIL Service Management System
- The Service Value Chain
- Continual Improvement best practices
- Key Guiding Principles
- Governance Requirements
- Key ITIL Practices, including:
  - Incident Management
  - Service Request Fulfillment
  - · Service Level Management
  - Service Desk
  - Change Control
  - Continual Improvement
- And many more

#### Job Roles

- Solution Architect
- Database Administrators
- Service Delivery Manager
- · ITSM Manager
- System Administrator
- Quality Assurance

#### **Course Objective**

ITIL 4 expands the scope of the world's leading best practice framework for IT to incorporate many new ways of working, including Agile, LEAN, DevOps, and other innovative approaches. In this course the learners will learn the core aspects of the ITIL Framework and how to use it to improve the quality of services that are delivered to the customers.

### Curriculum

**Module 1: Overview** 

- Introduction to ITIL
- Key Concepts of ITIL

**Module 2: The ITIL Framework** 

Module 3: The ITIL Guiding Principles

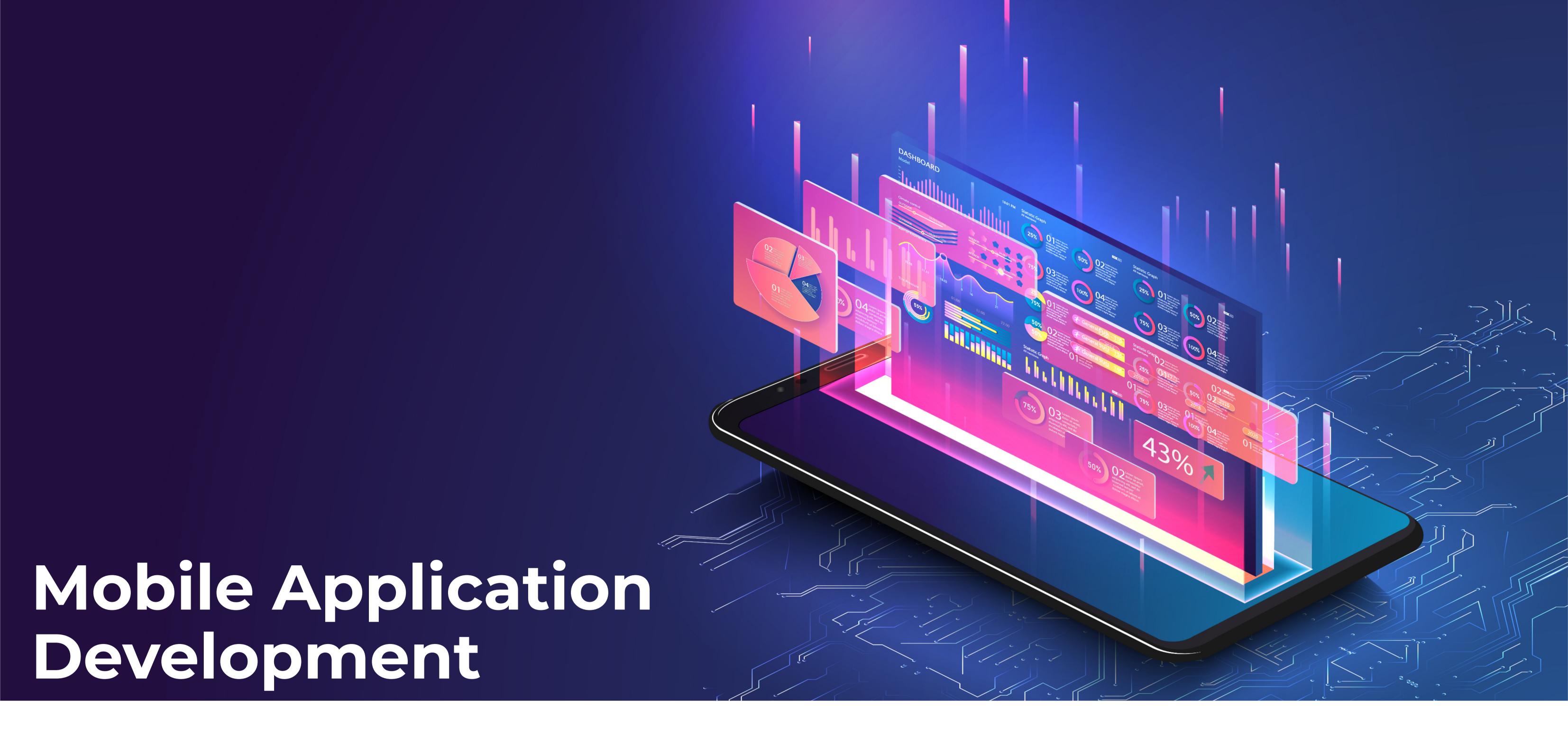
Module 4: The ITIL Service Value System (SVS)

Module 5: Key ITIL Practices

**Module 6: Other ITIL Practices** 

### Offline Location

Susan J. Wallace Community Centre G8M7+3JP, Nansen Ave, Freeport, Bahamas



# About the Program

This course is designed to train a learner about Mobile Application Development for Android using Java. This curriculum is designed to train the learners on Android development from the basics covering concepts such as UI Designing, service, multimedia, database and hardware programming, graphics, geolocation, firebase, and deploying amongst others. Post completion of this course the learner would be able to clear the certification exam for Google Associate Android Developer.

## Other Details

<b>Timings</b> Monday - Thursday (3 hours)  Saturday (5 hours)	Job Assist  Resume assistance, career mentoring and job portal access	Certified Trainers  Trainer with more than 25 years of experience in Cloud Computing	Projects Create a Loyalty Program Management Application developed for Android
Total Students 25	<b>Mode</b> Online / Offline	<b>Duration</b> This part time program is for 2 months	<b>Deadline</b> Register before 30th September, 2023

# Prerequisites

Learners need to possess an undergraduate degree or a high school diploma. Having prior knowledge of programming and coding languages such as Java is preferred.

# Capstone Project

The Loyalty Program Management App aims to provide end users with an app to manage loyalty programs for multiple vendors. Users may be signed up with different vendors via a single app and can utilize the app to review their current loyalty status, view benefits, redeem points, transfer points among other features.

## Skills covered

- Construct apps that use Android's messaging, multitasking, connectivity and media services to design full-featured apps for mobile devices.
- · Create apps with clean, effective user interfaces that takes advantage of Android's rich UI frameworks.
- · Leverage Android's effective frameworks and techniques to perform or schedule data retrieval/storage efficiently in a mobile environment.
- Understand the debugging tools in Android Studio and create more reliable and robust apps.
- Be able to test the execution of a running program with the intent of finding errors and abnormal or unexpected behavior.

## Job Roles

- Mobile Application Developer
- Android Developer
- Mobile Application Programmer
- Mobile Engineer
- Software Engineer

### Offline Location

Susan J. Wallace Community Centre G8M7+3JP, Nansen Ave, Freeport, Bahamas

### Curriculum

**Module 1: Overview** 

- Why go MAD (Mobile Application Development)?
- Why Android and not iPhone or other OS?

Module 2: Architecture of android

Module 3: Getting Started

Module 4: Hello World Application

Module 5: Android UI Design and Event

Handling

Module 6: Advance Ul

Module 7: Menus

Module 8: Intent

Module 9: Telephony

Module 10: Alerts and Dialogs

Module 11: Multimedia Programming

Module 12: Offline Web Apps

Module 13: Database Programming in

Android

Module 14: Hardware Programming in

Android

Module 15: Custom Designs

Module 16: Graphics and Animation

Module 17: Web Services

Module 18: Sensors

Module 19: Firebase

Module 20: Monetizing Apps

Module 21: Deploying & Publishing an Android Application

Module 22: Project