Cognizant Academy

Generation Cognizant (GenC)

CDO - DotNet RPA – Learning Guide

About this Leaning Program

The RPA training engages young talents with a comprehensive learning pathway by practice-oriented learning and equip themselves with the required knowledge and skillset in the RPA domain.

Cognizant emphasizes on Learner Autonomy where students take charge of their own learning pathway, with the available tools and resources. More focus is given to "learning" than "teaching". Get ready to embark your own learning adventure!

Program at a glance

DotNet RPA Training Program consist of 3 stages:

- Stage 1 - Technology Foundation Skills
- Stage 2 – Frameworks, APIs & Cloud Computing
- Stage 3 - RPA Tools

Program Highlights

- The complete learning journey is formalized using adult learning principles, where problem solving and applying the skills gained are given more importance than conceptual learning.
- Learner Autonomy is implemented via Flipped Classroom, where the learning platform offers world class learning resources, and students would not be constrained by tutelage of an instructor.
- Get mentored by Subject Matter Experts, whose motivation and guidance will help you accelerate in the learning journey.
- Higher order framework concepts would be dealt with complete Trainer support in Instructor Led training mode.

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Service Lines

Service lines can simply be defined as a modern organizational structure strategy for resource planning and allocation for any size of business. Typically, traditional organizational structure models are more vertically aligned -- think of an employee who has several bosses in the hierarchical ladder before being directly under the company's owner or president. Conversely, service lines follow a more horizontal continuum approach, where the company is strategically segmented into more manageable departments. The service line approach tends to focus more on the requirements of customers, which often results in noticeable increases in the customer satisfaction rate.

What is Robotic Process Automation (RPA)?

Software is helping companies automate repetitive tasks to improve operational efficiency, reduce costs and increase margins. The purpose of RPA is to more quickly and accurately handle cognitive activities to augment and extend human capabilities. RPA solutions reduce the errors of time-consuming manual processes and make our client's processes smarter. They also elevate workforce productivity by automating not only mundane tasks but also end-to-end business operations.

Learning Journey thru Flipped Classroom

The flipped classroom inverts the traditional learning experience. Lectures are shared outside of class time for individual review as homework, and classroom time is reserved for class discussion and interactive projects. The principal goals of flipping are as follows:

- To make the classroom an active learning environment
- To enable students to learn at their own pace, and
- To give the instructor more time to teach each student individually, rather than the class as a whole.

The learning path is set in the GEN C Learn Platform, which you can login with SSO.

Flipped Classroom

Self-Learning Hours
- Go through the Learning Objectives
- Try to accomplish the learning objectives by accessing learning resources
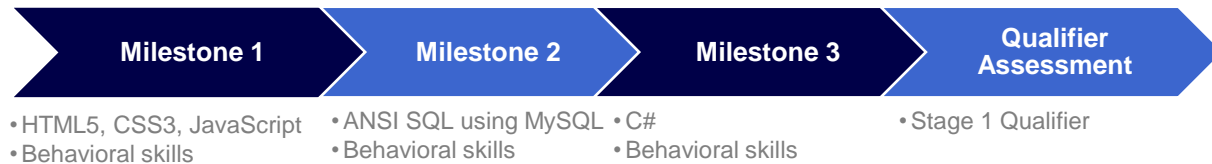
Practice Time
- Get guidance from Subject Matter Expert
- Deep dive on to the learning concepts and solve a problem statement

Recommended Program Sequence

The learning journey starts with **5 days of Icebreaker sessions** followed by a technical learning that contains **3 stages** and they are the following:

- ➤ Stage 1 - Technology Foundation Skills
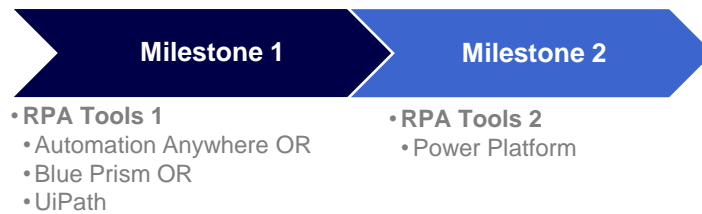- ➤ Stage 2 – Frameworks, APIs & Cloud Computing
- ➤ Stage 3 - RPA Tools

Stage 1 - Technology Foundation Skills

Milestone 1	Milestone 2	Milestone 3	Qualifier Assessment
• HTML5, CSS3, JavaScript • Behavioral skills	• ANSI SQL using MySQL • Behavioral skills	• C# • Behavioral skills	• Stage 1 Qualifier

Stage 2 – Frameworks, APIs and Cloud Computing

Milestone 1	Milestone 2	MIlestone 3	Milestone 4	Milestone 5
• Entity Framworks • Behavioral Skills	• ASP.NET MVC • Behavioral Skills	• Web API & Web Service • Behavioral Skills	• Cloud Fundamentals using AWS • Behavioral Skills	• Python Basics • Behavioral Skills

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Stage 3 - RPA Tools

Milestone 1	Milestone 2
• **RPA Tools 1**	• **RPA Tools 2**
• Automation Anywhere OR	• Power Platform
• Blue Prism OR	
• UiPath	

All the 3 stages would be executed in the **Flipped classroom model** through Learning paths configured on the **Tekstac** platform.

The initial two stages will be part of Academy training, and Stage 3 training will be conducted by **BU**.

Key Learning and Evaluation Components of the Program

Self-Learning via Udemy

Cognizant has collaborated with **Udemy** to provide world class learning videos for the evolving future of work. These Udemy programs are woven into a learning path, empowering you to plan and learn at your style.

The program also connects you with **Subject Matter Experts (SMEs)** to get the professional guidance on your queries in the learning journey.

RAG as PHS (Performance Health Status)

The program continuously evaluates if you are able to apply those self-learnt skills to solve a real-time business problem. Depicted below are the two key learning components, which are distributed across the learning journey for the purpose of continuous evaluation.

Interim Evaluation:

During the interim evaluation, the GenC will undergo a video interview on the learning platform. This interview will be conducted by a Tech SME from the BU. The purpose of this evaluation is to assess the GenC's knowledge and understanding of the skills covered in the training program up to the halfway point. It also encompasses an evaluation of the GenC's progress in their RPA Tool 1 case study project. The evaluation will involve a technical discussion as well as an assessment of the case study progression to gauge the GenC's proficiency in the skills learned thus far.

Final Evaluation:

For the final evaluation, the GenC will participate in a video interview conducted by a Tech SME from the BU. This evaluation aims to assess the GenC's knowledge and expertise in all the skills covered throughout the entire training program. Similar to the interim evaluation, this assessment will involve a technical discussion via a video interview on the learning platform, along with a project evaluation to assess the GenC's capabilities and their RPA Tool 2 case study's progress. It serves as a comprehensive evaluation of the GenC's skills and capabilities acquired during the training.

The above evaluation components will attribute to the **Performance Health Status (PHS)** of a GenC. Additional Learning Components like Hands-On, Quizzes, CCs, and ICTs will help you to enhance your expertise level.

Icebreaker Sessions

Icebreaker session will be conducted for a duration of initial **5 days**. During the session, various topics related to Corporate Induction, Talent Management, Cognizant Agenda on Core Values, Leader Talks, Alumni, BU Mentor connects will be covered. Followed by icebreaker, technical training will kick start.
Following sessions will be covered during the 5 days of icebreaker

- Corporate Induction
- Talent Manager Connect
- Cognizant Agenda Sessions on Core Values
- Leader Talks (Academy) and many more…

Recommended Day-wise Schedule

A recommended day-wise schedule is provided below for the learning, with the learning content for the day, the practice hands-on and extended hands-on to be don for the day or any other activities are listed. Few days might be interleaved to accommodate the extension due to Behavioral Training.

Stage 1: Foundational Technology Skills

Overview

Stage 1 deals with foundation technology skills that help GenCs to get start with their software engineering career. We provide unique learning experience to learners by including diversified learning content and learning methodologies that are based on adult learning principles. At the end

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of this stage, there will be a **Qualifier Assessment** which determines the direction of the learning journey of a GenC at Cognizant.

As part of Stage 1 of your training, the following skills will be covered.

- HTML5, CSS3 and JavaScript
- ANSI SQL using MySQL
- C#
- ADO.NET

How and From Where to Learn?

- Udemy learnings are recommended in the Platform to understand the fundamental concepts. In addition to this, you can also learn from any other sources as they are mentioned in this handbook.

Stage 1: Milestone 1 – HTML5, CSS3, JavaScript

This Milestone will focus on UI & Scripting Technology in which the GenCs will learn about HTML5, CSS3 and JavaScript.

Udemy learnings are recommended in the Platform to understand the fundamental concepts. Apply the concepts learned and solve the Hands-on as recommended below.

About HTML5 (Computer application)

HTML5 is a markup language used for structuring and presenting content on the World Wide Web. It is the fifth and final major HTML version that is a World Wide Web Consortium recommendation. The current specification is known as the HTML Living Standard

Learn about Top 10 New Features of HTML5 - Click Here

HTML5 **Cheat Sheets** - Click Here

Day 1

HTML5, CSS3

Learn the basics of HTML5 & CSS3

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𝓊   Responsive Web Design: HTML5 + CSS3 for Entrepreneurs 2018

- Learn the sections listed below in this Udemy course and complete the corresponding hands-on coding given below.
  - Lets Learn Some HTML 5
  - CSS3 & First Project
- Implement the examples along with the author.

About CSS3 (Programming language)

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language such as HTML or XML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.

What is CSS3 - Click Here

CSS3 **Cheat Sheets** - Click Here

Go through the **Visual Studio Code Features** from the following Udemy course.

𝓊   Beginner VS Code

- Walkthrough the entire sections in this Udemy course and learn how to use VS Code effectively.

Go through web pages for learning below specific topics
- HTML5 Events
- HTML5 - Geo location - ASP
- HTML5 - Web Storage
- HTML5-Web SQL Database
- WEB Forms 2.0
  - HTML <output> Tag
  - HTML <input> Tag

- RWD Introduction
- RWD Media Queries

Hands-On

Complete the following set of hands-on given in the Learning Path at Tekstac.

🛑   Do not copy paste the code. Write the code yourself.

- Simple Calculator

7

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- Learning Material Styling
- Feedback Details
- Bill Calculator
- Trainer Feedback Rating Chart

Technical Quiz

Attempt the following technical quiz in the Learning Path at Tekstac for checking your knowledge level on HTML5 & CSS3.

- **Quiz 1 - HTML 5 & CSS3**
  - HTML5, CSS3

Code Challenge (For Practice Only)

Attempt the following Code Challenges through the Learning Path at Tekstac for checking your skill level on HTML5 & CSS3. You have to secure 70% in order to clear this challenge.

🛑 Do not copy paste the code. Write the code yourself.

- Code Challenge - HTML5 and CSS3

Day 2

JavaScript

Learn the basics of JavaScript

About JavaScript (Programming language)

JavaScript, often abbreviated JS, is a programming language that is one of the core technologies of the World Wide Web, alongside HTML and CSS. As of 2022, 98% of websites use JavaScript on the client side for webpage behavior, often incorporating third-party libraries.

An Introduction to JavaScript - Click Here

JavaScript **Cheat Sheets** - Click Here

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𝓊 Javascript basics for beginners

- Learn the sections listed below in this Udemy course and complete the corresponding hands-on coding given below.
  - Getting Started
  - Basics
  - Operators

8

- o   Control flow
  - o   Objects
- Implement the examples along with the author.

Hands-On

Complete the following set of hands-on given in the Learning Path at Tekstac.

⛔   Do not copy paste the code. Write the code yourself.

- ACTB connection portal

Day 3

JavaScript

Additional Learning

Explore about **Chrome Developer Tools** from the below given Udemy course

𝒰   Devtools Pro: The Basics of Chrome Developer Tools

Go through **W3Schools** web pages for learning below specific topics

Form Validation
- JavaScript Form Validation
- JavaScript can validate numeric input
- Data Validation

String Methods
- String Length
- The substring() Method
- String.trim()

JavaScript HTML DOM
- The HTML DOM (Document Object Model)
- What is DOM?
- What is the HTML DOM?

Window alert() Method
- Definition and Usage
- Example

JSON

Regular Expression

isNan() function

Go through **javascript-coder.com** web page for learning form submission

- Refer code example in this web page
  - JavaScript Form Submit Example

Hands-On

Complete the following hands-on given in the Learning Path at Tekstac.

> ⛔ Do not copy paste the code. Write the code yourself.

- EMI Calculator

Technical Quiz

Attempt the following technical quiz in the Learning Path at Tekstac for checking your knowledge level on JavaScript.

- **Quiz 2 - Java Script**
  - Java Script

Code Challenge (For Practice Only)

Attempt the following Code Challenges through the Learning Path at Tekstac for checking your skill level on JavaScript. You have to secure 70% in order to clear this challenge.

> ⛔ Do not copy paste the code. Write the code yourself.

- Code Challenge - JavaScript

Stage 1: Milestone 2 - ANSI SQL Using MySQL

This Milestone will focus on **ANSI SQL using MySQL**

Udemy learnings are recommended in the Platform to understand the fundamental concepts. Apply the concepts learned and solve the Hands-on as recommended below.

About SQL (Programming language)

SQL is a domain-specific language used in programming and designed for managing data held in a relational database management system, or for stream processing in a relational data stream management system.

Introduction to ANSI SQL - Click Here

SQL **Cheat Sheets** - Click Here

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ANSI SQL

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📕 Relational Database Design
- Learn all the sections in this Udemy course

📕 SQL for Beginners: Learn SQL using MySQL and Database Design
- Learn the sections listed below in this Udemy course and complete the corresponding hands-on coding given below.
    - Section 2: Installation and Setup
    - Section 3: Data Definition Language
    - Section 4: More On Alter Table
    - Section 5: Data Manipulation Language
    - Section 6: Selecting from a Table

Hands-On

Complete the following set of hands-on given in the Learning Path at Tekstac.

🛑 Do not copy paste the solution. Write the query yourself.

- Insert Records - Department
- Department name based on block number
- Hunger eats - update table
- Delivery Partner details based on rating
- car rental system - Insert values
- Customers having gmail id
- Car details based on type and name
- Car & owner details based on car type

Technical Quiz

Attempt the following technical quiz in the Learning Path at Tekstac for checking your knowledge level on Database concepts.

- **Quiz 1 - Database concepts**
    - SQL basics with DML and DDL Statements

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Day 5

ANSI SQL

Learn and Practice

SQL for Beginners: Learn SQL using MySQL and Database Design

- Learn the sections listed below in this Udemy course and complete the corresponding hands-on coding given below.
  - Selecting From Multiple Tables
  - Aggregate Functions
  - Subqueries

Hands-On

Complete the following set of hands-on given in the Learning Path at Tekstac.

> ⛔ Do not copy paste the solution. Write the query yourself.

- Student and their Department Based on City
- Concatenating Details
- Password Generation
- Customer using HDFC bank
- Rental details based on date
- Hotels that took order based on month
- Hotel_info

Technical Quiz

Attempt the following technical quiz in the Learning Path at Tekstac for checking your knowledge level on ANSI SQL.

- Quiz 2 - ANSI SQL
  - Querying Database - Operators, Aggregate, String, Date Functions

Additional Learning

Please go thru the following:

- MySQL Rank Function
- Introduction to NoSQL

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Code Challenges (For Practice Only)

Attempt the following Code Challenges through the Learning Path at Tekstac for checking your skill level on SQL Programming. You have to secure 70% in order to clear this challenge.

⛔ Do not copy paste the solution. Write the query yourself.

- Code Challenge - RDBMS Select Statements
- Code Challenge - RDBMS DDL & DML
- Code Challenge - Function-Scalar & Aggregate
- Code Challenge - Functions & SubQueries

Stage 1: Milestone 3 - C#

This Milestone will focus on C# Programming and its practical usage in various application development scenarios.

Udemy learnings are recommended in the Platform to understand the fundamental concepts. Apply the concepts learned and solve the Hands-on as recommended below.

About C# (Programming language)
C# is a general-purpose, multi-paradigm programming language. C# encompasses static typing, strong typing, lexically scoped, imperative, declarative, functional, generic, object-oriented, and component-oriented programming disciplines. Introduction to C# - Click Here C# **Cheat Sheets** - Click Here

Day 6

C#

Intro, Platform, Syntax, Variables, Keywords, Operators, Methods, Conditional statement, Loops

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𝓾 Complete C# Masterclass
- Learn the sections listed below in this Udemy course and complete the corresponding hands-on coding given below.
  - Section 1: Your First C# Programm And Overview Of Visual Studio

- Section 2: DataTypes and Variables
  - Section 3: Functions/Methods And How To Save Time
  - Section 4: Making Decisions
  - Section 5: Loops
- Implement the examples along with the author.

Please go thru this link for Value type vs reference types

Hands-On

Complete the following set of hands-on given in the Learning Path at Tekstac.

⛔ Do not copy paste the code. Write the code yourself.

- Find Square and Cube
- Registration Form
- BooleanResult
- StringConcatenate
- Generate Bill Details

Technical Quiz

Attempt the following technical quiz in the Learning Path at Tekstac for checking your knowledge level on Looping in C#.

- **Quiz - 1   C# - Looping**
  - C# - Looping

Day 7

C#

Class, Object, Arrays and Lists

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𝓊 Complete C# Masterclass
- Learn the sections listed below in this Udemy course and complete the corresponding hands-on coding given below.
  - Section 6: Object-Oriented Programming
  - Section 7: Collections in C#
- Implement the examples along with the author.

Hands-On

Complete the following set of hands-on given in the Learning Path at Tekstac.

⛔ Do not copy paste the code. Write the code yourself.

- Quiz Competition Report
- Reverse a Sentence
- CalculatorProgram

14

- Extract Book Code - Hands –On

Additional Learning

Go thru the below tutorial site in order to learn more about OOAD.

- Object Oriented Analysis & Design

C#

Encapsulation, Inheritance, Interface

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Complete C# Masterclass

- Learn the sections listed below in this Udemy course and complete the corresponding hands-on coding given below.
  - Section 9: Inheritance and More About OOP
- Implement the examples along with the author.

Additional Learning

Go thru the below website in order to understand Encapsulation concept in OOP

- Encapsulation

Hands-On

Complete the following set of hands-on given in the Learning Path at Tekstac.

⛔ Do not copy paste the code. Write the code yourself.

- AccountDetails
- OpenableInterface
- GameInheritance
- MaxValueofSignedByte

C#

Polymorphism and File Read/Write

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Complete C# Masterclass

- Learn the sections listed below in this Udemy course and complete the corresponding hands-on coding given below.
    - o   Section 10: Polymorphism and Even More On OOP+Text Files
- Implement the examples along with the author.

Hands-On

Complete the following hands-on given in the Learning Path at Tekstac.

⛔   Do not copy paste the code. Write the code yourself.

- Product details

Additionally, go thru the below link and try out the examples found there.

- File Read and Write in C#

Code Challenge (For Practice Only)

Attempt the following Code Challenges through the Learning Path at Tekstac for checking your skill level on C# programming. You have to secure 70% in order to clear this challenge.

⛔   Do not copy paste the code. Write the code yourself.

- Code Challenge - C# - Group 1

C#

Debugging, Exception Handling, LINQ

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u Complete C# Masterclass

- Learn the sections listed below in this Udemy course and complete the corresponding hands-on coding given below.
  - o Section 8: Debugging
  - o Section 3: Functions/Methods And How To Save Time
    - ▪ 44. Try Catch and Finally
  - o Section 15: Linq

- Implement the examples along with the author.

Hands-On

Complete the following set of hands-on given in the Learning Path at Tekstac.

🛑 Do not copy paste the code. Write the code yourself.

- Vehicles Released in Certain Years – Linq

Practice the example given in the following link in order to understand and get start with application debugging and Exception Handling.

- Learn to debug C# code using Visual Studio
- Exception Handling in C#
- LINQ Samples

C#

Advanced C# Topics (Lambda Expressions, Access Modifiers, Structs, Enums, Math Class, Random Class, Regular Expressions, DateTime)

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u Complete C# Masterclass

- Learn the sections listed below in this Udemy course and complete the corresponding hands-on coding given below.
  - o Section 11: Advanced C# Topics
- Implement the examples along with the author.

17

Hands-On

Complete the following set of hands-on given in the Learning Path at Tekstac.

⛔ Do not copy paste the code. Write the code yourself.

- Flight Status
- Age Calculation

Technical Quiz

Attempt the following technical quizzes in the Learning Path at Tekstac for checking your knowledge level on Advanced C# Concepts.

- **Quiz - 2   C# - Lambda Expressions**
    - C# - Lambda Expressions

Day 12

C#, ADO.NET

Events and Delegates, Threads, ADO.NET

About ADO.NET (System software)
ADO.NET is a data access technology from the Microsoft .NET Framework that provides communication between relational and non-relational systems through a common set of components. ADO.NET is a set of computer software components that programmers can use to access data and data services from a database. Introduction to ADO.NET - Click Here ADO.NET Code Examples - Click Here

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𝓊 Complete C# Masterclass

- Learn the sections listed below in this Udemy course and complete the corresponding hands-on coding given below.
    - Section 12: Events and Delegates
    - Section 17: Threads
- Implement the examples along with the author.

Download and walkthrough the PDF document **ADO.Net_Learning.pdf** from the platform. Refer page numbers 1 to 21, 25 to 28

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Hands-On

Complete the following set of hands-on given in the Learning Path at Tekstac.

⛔ Do not copy paste the code. Write the code yourself.

- ADO.NET_WorkshopEnrollmentApp_HandsOn1
- Seminar Ticket Booking

Code Challenge (For Practice Only)

Attempt the following Code Challenges through the Learning Path at Tekstac for checking your skill level on C# and ADO.NET programming. You have to secure 70% in order to clear this challenge.

⛔ Do not copy paste the code. Write the code yourself.

- Code Challenge - C# - Group 2

Day 13

ICT (Integrated Capability Test) (For Practice Only)

Take up the following extended integrated practice task in order to check your skill level after completing the Stage 1 of your training. Unlike Code Challenge, the coverage of this practice will be C#, SQL Server and ADO.NET. You have to score a minimum 70% in order to complete this activity successfully.

⛔ Do not copy paste the code. Write the code yourself.

- Stage 1 ICT

Mock Qualifier

- Take the Mock Qualifier from the learning path at Tekstac to become familiar with the actual qualifier assessment.

The following days have been added here to adjust the behavioral training hours.

Day 14 & 15

Day 16 & 17

Stage 1 Qualifier Assessment

- You should complete 100% of the hands-on exercises in order to qualify for the qualifier assessment.
- These two days will be dedicated for the Qualifier Assessment and Result Publishing.

Stage 2 - Frameworks, APIs and Cloud Computing

Overview

Stage 2 deals with application frameworks, web service, API and Cloud Computing using AWS. We provide unique learning experience to learners by including diversified learning content and learning methodologies that are based on adult learning principles.

As part of Stage 2 of your training, the following skills will be covered.

- Entity Framework 6
- ASP.NET MVC
- Web API & Web Service
- Cloud Fundamentals using AWS
- Python Basics

How and From Where to Learn?

- Udemy learnings are recommended in the Platform to understand the fundamental concepts. In addition to this, you can also learn from any other reliable sources as they are mentioned in this handbook.

Milestone 1 deals with Entity Framework which makes the developers easy while they develop .NET applications that connect with database server, fetch and update data.

Udemy learnings are recommended in the Platform to understand the fundamental concepts. Apply the concepts learned and solve the Hands-on as recommended below.

About Entity Framework (ORM framework)

Entity Framework is an open source object–relational mapping framework for ADO.NET. It was originally shipped as an integral part of .NET Framework. Starting with Entity Framework version 6, it has been delivered separately from the .NET Framework.

Entity Framework using C# - Click Here

CRUD Operations in Entity Framework - Click Here

Day 18

Entity Framework

Introduction to Entity Framework, Building model with Database & Code first Approach, Fluent API,

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Entity Framework in Depth: The Complete Guide

- Learn sections listed below in this Udemy course and complete the corresponding hands-on coding given below
    - Introduction
    - Getting Started
    - Building a Model using Code-First Workflow
    - Building a Model using Database-First Workflow
    - Overriding Code-First Conventions
- Implement the examples along with the author.

Hands-On

Complete the following set of hands-on given in the Learning Path at Tekstac.

Do not copy paste the code. Write the code yourself.

- StudentDetails Using CodeFirst
- BookEntry_FluentAPI

Try out the example given below in order to understand about Database-First workflow while working with Entity Framework.

> ⛔ Do not copy paste the code. Write the code yourself.

- Database-First Example

Day 19

Entity Framework

Querying data using LINQ, Entity Framework Repository pattern

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𝓊 Entity Framework in Depth: The Complete Guide

- Learn sections listed below in this Udemy course and complete the corresponding hands-on coding given below
  - Querying Data using LINQ
  - Loading Related Objects
  - Updating Data
  - Using Entity Framework in Your Applications
- Implement the examples along with the author.

Hands-On

Complete the following hands-on given in the Learning Path at Tekstac.

> ⛔ Do not copy paste the code. Write the code yourself.

- Course Repository

Try out the examples given below in order to understand about Querying database using LINQ while working with EF6.

> ⛔ Do not copy paste the code. Write the code yourself.

- Querying Data using LINQ Examples - Part 1
- Querying Data using LINQ Examples - Part 2
- Eager Loading Example
- Lazy Loading Example
- Explicit Loading Example

Technical Quiz

Attempt the following technical quiz in the Learning Path at Tekstac for checking your knowledge level on Entity Framework.

22

- **Quiz 1 - Entity Framework**
  - Entity Framework

Code Challenge (For Practice Only)

Attempt the following Code Challenge through the Learning Path at Tekstac for checking your skill level on Entity Framework. You have to secure 70% in order to clear this challenge.

🛑   Do not copy paste the code. Write the code yourself.

- Code Challenge - Entity Framework

Stage 2: Milestone 2 - ASP.NET MVC

Milestone 2 will be focusing on **ASP.NET MVC** which is a web framework based on Model-View-Controller (MVC) architecture. GenCs can build dynamic web applications using ASP.NET MVC framework that enables a clean separation of concerns, fast development, and TDD friendly.

ASP.NET MVC is a web application framework developed by Microsoft that implements the model–view–controller pattern. It is no longer in active development. It is open-source software, apart from the ASP.NET Web Forms component, which is proprietary

Day 20

ASP.NET Basics, Getting Started, ASP.NET MVC Fundamentals

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𝓾 A Gentle Introduction To ASP.NET For Beginners

- Learn the sections listed below in this Udemy course and complete the corresponding hands-on coding given below.
  - Section 2: Introduction to ASP.NET
  - Section 3: Creating Web Forms … A Detailed Look
  - Section 4: Working with Style Sheets and Master Pages
  - Section 5: Database Driven Web Pages
- Implement the examples along with the author.

𝓾 The Complete ASP.NET MVC 5 Course
- Learn the sections listed below in this Udemy course and complete the corresponding hands-on coding given below.
  - Section 1: Getting Started
  - Section 2: ASP.NET MVC Fundamentals
- Implement the examples along with the author.

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Hands-On

Try out the example given in the following web page to get start your ASP.NET MVC application development.

> ⛔ Do not copy paste the code. Write the code yourself.

- Create Your First MVC App

Complete the following set of hands-on given in the Learning Path at Tekstac.

> ⛔ Do not copy paste the code. Write the code yourself.

- Ex 1.1 - Controllers and Actions
- Ex 1.2 Controllers and Actions
- Ex 5-1 Partial View
- Ex 2.1 - Working With View Bag
- Ex 3.1 Working With Model Binding

Day 21

Action Methods, Action Selectors and ActionVerbs, Filters, Entity Framework in ASP.NET MVC

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𝓊 The Complete ASP.NET MVC 5 Course
- Learn the sections listed below in this Udemy course and complete the corresponding hands-on coding given below.
  - Section 3: Working with Data
- Implement the examples along with the author.

Learn about Action Methods, Action Selectors, ActionVerbs and Filters from the following

- Action Methods
- Action Selectors
- ActionVerbs
- Filters

Try out the examples found in the above links

Hands-On

Complete the following set of hands-on given in the Learning Path at Tekstac.

> ⛔ Do not copy paste the code. Write the code yourself.

- Ex 4-1 Working With HTTP POST

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- Ex 4-2 Working With HTTP POST
- Ex 6-2 Entity Framework Integration With ASP MVC
- Ex 6-3 Entity Framework Integration With ASP MVC - POST
- Ex 6-4 Entity Framework Integration With ASP - POST

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Day 22

Building Forms & Implementing Validations, Routing

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The Complete ASP.NET MVC 5 Course
- Learn the sections listed below in this Udemy course and complete the corresponding hands-on coding given below.
  - Section 4: Building Forms
  - Section 5: Implementing Validation
- Implement the examples along with the author.

Learn everything about Routing in ASP.NET MVC from the following

- Routing in ASP.NET MVC - Part 1
- Routing in ASP.NET MVC - Part 2

Try out the samples found in the above link

Hands-On

Complete the following hands-on given in the Learning Path at Tekstac.

> ⛔ Do not copy paste the code. Write the code yourself.

- Ex 3.2 Working With Model Binding

Try out the example found in the following

> ⛔ Do not copy paste the code. Write the code yourself.

- ASP.NET MVC Form

Day 23

Exception Handling, Security, Authentication, and Authorization with ASP.NET MVC, Deployment

Continuous Learning: Technical Enablement

The Complete ASP.NET MVC 5 Course
- Learn the sections listed below in this Udemy course and complete the corresponding hands-on coding given below.
  - Section 8: Authentication and Authorization
  - Section 11: Deployment

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- Implement the examples along with the author.

Learn about Exception Handling and Security from the following

- Exception Handling in ASP.NET MVC
- Security in ASP.NET MVC

Hands-On

⛔ Do not copy paste the code. Write the code yourself.

- Try out the samples found in the above links.

Try out the ASP.NET MVC application deployment from the following

⛔ Do not copy paste the code. Write the code yourself.

- ASP.NET MVC 5 - Deployment On Windows IIS Server

Technical Quiz

Attempt the following technical quiz in the Learning Path at Tekstac for checking your knowledge level on ASP.NET MVC framework.

- **Quiz 1 - ASP.Net MVC**
  - MVC

Code Challenge (For Practice Only)

Attempt the following Code Challenge through the Learning Path at Tekstac for checking your skill level on ASP.NET MVC framework. You have to secure 70% in order to clear this challenge.

⛔ Do not copy paste the code. Write the code yourself.

- Code Challenge - ASP.Net MVC with Entity Framework

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The following day has been added here to adjust the behavioral training hours.

Day 24

Stage 2: Milestone 3 - Web API & Web Service

Milestone 3 will be focusing on **Web API & Web Services** which are technologies that enable the transfer of data between separate software applications. API is an interface that exposes an application's data to outside software, whereas web services are one type of API with stricter requirements

Day 25

Web API & Web Services

Introduction to API, Introduction to Web services, HTTP, XML, JSON, SOAP

Continuous Learning: Technical Enablement

API and Web Service Introduction

- Learn the sections listed below in this Udemy course and complete the corresponding hands-on coding given below.
  - Section 1: Introduction
  - Section 2: API
  - Section 3: Web Service
  - Section 4: HTTP
  - Section 5: XML
  - Section 6: JSON
  - Section 7: SOAP
- Implement the examples along with the author.

Day 26

Web API & Web Services

REST, API Access, API Examples, Microservices Basics

Continuous Learning: Technical Enablement

API and Web Service Introduction

- Learn the sections listed below in this Udemy course and complete the corresponding hands-on coding given below.
  - Section 8: REST
  - Section 9: API Access

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- o Section 10: API Examples
- o Section 11: Extras
- Implement the examples along with the author.

Stage 2: Milestone 4 - Cloud Fundamentals using AWS

Milestone 4 will be focusing on **Cloud Fundamentals using AWS** which is the on-demand delivery of compute power, database, storage, applications, and other IT resources through a cloud services platform (AWS) through the internet with pay-as-you-go pricing.

Day 27 - 32

Continuous Learning: Technical Enablement

[NEW] AWS Certified Cloud Practitioner 2023

- Learn All Sections of this course.
- Implement the examples along with the author.

6 Practice Exams | AWS Certified Cloud Practitioner CLF-C01

- Walkthrough the entire sections of this course.

The following day has been added here to adjust the behavioral training hours.

Day 33

Stage 2: Milestone 5 - Python Basics

Milestone 5 will be focusing on **Python** which is a general-purpose, versatile, and powerful programming language. It is dynamically-typed and garbage-collected. It supports multiple programming paradigms, including structured, object-oriented and functional programming.

Day 34

Python

Continuous Learning: Technical Enablement

Python for Absolute Beginners

- Learn the sections listed below in this Udemy course and complete the corresponding hands-on coding given below.
  - o Section 1: Introduction

- Section 2: Python Basics
- Section 3: Strings Part 1
- Section 4: functions
- Section 5: flow control
- Section 6: introduction to loops
- Section 7: strings part 2
- Implement the examples along with the author.

<div style="background-color:#4472C4; color:white; padding:5px; display:inline-block;">**Day 35**</div>

Python

Continuous Learning: Technical Enablement

𝒖 Python for Absolute Beginners

- Learn the sections listed below in this Udemy course and complete the corresponding hands-on coding given below.
  - Section 8: lists
  - Section 9: dictionaries
  - Section 10:tuples
  - Section 11: sets
- Implement the examples along with the author.

Stage 3 - RPA Tools

Overview

Stage 3 deals with RPA Tools. The following RPA tools will be introduced as part of this RPA tools training.

- RPA Tools 1
  - Automation Anywhere
  - Blue Prism
  - UiPath
- RPA Tools 2
  - Power Platform

Note: Both **Interim** and **Final Evaluation** will take place during this stage of RPA training.

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Stage 3: Milestone 1 - RPA Tools 1

Milestone 1 will be dealing with the RPA tools.

Day 36 - 60

You will be trained on any one of the following tools as part of your RPA Tools 1 training.

Tool	Course
Automation Anywhere	Bot Developer (litmos.com)
	Bot Developer (A2019) (litmos.com)
	Control Room Administrator (litmos.com)
	Control Room Administrator (A2019) (litmos.com)
	Delta Training: A2019 (litmos.com)
	Automation Anywhere Secure Bot Developer (litmos.com)
	Automation Use Cases (litmos.com)
OR	
Blue Prism	Blue Prism Developer Certification Curriculum
	Further Developer Learning
	Working with different application types and Spy Modes
OR	
UiPath	RPA Starter
	RPA Developer Foundation
	RPA Developer Advanced
	RPA Developer Continuous Learning

Interim Evaluation

Interim Evaluation (Project + Technical)

- An interim evaluation will be conducted at this phase of training, and it will be in the form of a video interview on the Tekstac platform.

Stage 3: Milestone 2 - RPA Tools 2

Milestone 1 will be dealing with the RPA tools.

Day 61 to 80

You will be trained on the following RPA tool as part of your RPA Tools 2 training.

Tool	Course

Power Platform	Microsoft Power Platform Fundamentals
	PL-900: Microsoft Power Platform Fundamentals
	Enablement Session from Microsoft Certified Trainer: Kpoint Videos
	PL-900 Microsoft Power Platform Fundamentals (kpoint videos)
	Exam PL-900: Microsoft Power Platform Fundamentals

Final Evaluation

Final Evaluation (Project + Technical)

- Final Evaluation will be conducted at this phase of training, and it will be in the form of a video interview on the Tekstac platform.
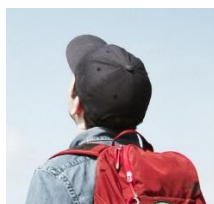
How to learn each day?

Each day has a set of learning objectives. These learning objectives can be met by going through the Udemy courses and by completing the hands on exercises mentioned in the daily plan.

The below strategies will help you decide the learning approach.

Learning Strategy & Approach

Find below few imaginary profiles. For each of these profiles we have defined a recommended learning approach. This is not an exhaustive list. The approaches below might help invent a new way of learning.

Profile #1

Harry Reacher

Engineering Discipline: Electronics

Skills: Python, Ruby on Rails, nginx

Project: Mining Crime Data to get Route Cause Insights

Learning Approach to Programming Languages: I do not want to waste my time learning. I am more practice oriented. I want to work on the problem immediately

What will work for me?

- Directly complete hands on exercises
- Refer Internet or Udemy Courses
- If hands on are implemented early, clarify your friends questions and troubleshoot their issues

Profile #2

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Olivia Richards

Engineering Discipline: Computer Science

Skills: Java, C, C++

Project: Library Management System

Learning Approach to Programming Languages: I have interest, but I don't know where to start.

What will work for me?

- Go through the recommended Udemy Course
- Try completing the hands on exercises
- Get your clarifications solved with help from Tech SME
- Get help from other learners in your batch whom had already completed

Profile #3

Greg Anderson

Engineering Discipline: Civil

Skills: C

Project: Fiber reinforced concrete

Learning Approach to Programming Languages: I am scared of programming languages. I haven't got my hands dirty with coding

What will work for me?

- Go through the recommended Udemy Course
- Implement the coding along with the author of the Udemy Course
- Try completing the hands on exercises
- Clarify queries with SME
- Troubleshoot programming issues with help from SME or learner from your classroom whom had already completed

FAQs

1. **Who can participate in this program?**

   Students who have enrolled for Full Internship Program (or) the Cognizant on-boarded GEN Cs can participate in this program.

2. **Is there any pre-learning I should do?**

   No. This program is open to all students from any academic discipline.

3. **What is Code Challenge?**

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A problem statement will be provided to you and you need to solve it using a single skill.

4.   What is Integrated Capability Test (ICT)?

A case study problem statement will be provided to you, that you may need solve using the combination of Skills learnt in the given stage.

5.   How many attempts are provided for the Coding challenge and ICTs?
Is it open all the time for practice?

The Coding challenges and ICTs are open and there are 3 attempts to take them up.

6.   What are the entry criteria for qualifier?

100% hands-on completion and attempt in the CC & ICT is the eligibility criteria for qualifier.

7.   What skills are covered in the qualifier?

The skills of Stage 1 are covered in the qualifier. Only ONE attempt is provided to clear with a minimum score of 70%

8.   What if I fail in the Interim evaluation?

Your coach will notify your performance in the Interim evaluation. However, you can continue with the learning.

9.   How many chances will I get in the Final evaluation?

You'll get 2 chances in the Final evaluation which covers ALL the skills in the learning journey.

10.   Whom do I reach out in case of any queries?

Coach is your point of contact.

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