**ICTER Guru IT Training-2022**

**QA Manual and Automation Training**

**Tentative Syllabus (TBU)**

**Introduction and Objectives:**

In this manual and automation integrated course we will start with fundamental of software testing; software testing terminology; Manual Testing vs. Automated Testing; Key Terms and Involvement in developing of software; Software Development Life Cycle (SDLC); Software Testing and reporting techniques, etc. In the automation part we will start with a Complete Automated Web-based Test

Framework designed with Java and Selenium Web driver, Cucumber, JUnit, *TestNG, Page Object Model, Maven,  log4j and all other possible tools needed for developing and deploying a robust and secured automation framework in current IT industries. In order to help you learn and understand the above framework, day-by-day we will discuss the* Java Basics and Introduction to Object-Oriented Programming concepts with hands-on activities.

We will practice Agile Scrum methodology in our every class. By the end of this course, you will get a good foundation of Object-Oriented Programming; and Web application automation fundamentals with Java and Selenium Web driver.

QA manual and Automation Testing Syllabus (Draft):

Manual Testing (Tentative):

**Part I**

* Software Testing & Why
* Key Terms and Involvement in developing of software
* Fundamental of Testing
* Manual Testing vs. Automated Testing
* Software Testing Terminology
* Requirement
* Test Case
* Test Plan/Test strategy
* Software Development Methodologies (Agile, Waterfall, Iterative and V-Model)
* Software Development Life Cycle (SDLC)
* QA involvement in SDLC
* Software Testing Type
* Software Testing Life Cycle (STLC)
* Software Testing Techniques
* Testing Documents
* Use Case
* Bug Life Cycle
* Software Release Life Cycle
* HP QC – Quality’ Center / ALM / JIRA
* Questions vs. Answers
* Tools

**Part II**

Database Testing:

What is Database Testing/Why?

Types of Database/ Table/ SQL Commands and Queries (In depth)

Including table joining.

Automation Testing (Tentative):

In the Automation part we will start with a Complete Automated Web-based Test Framework  designed with Java and Selenium Webdriver, Cucumber, JUnit, *TestNG,  Page Object Model, Maven,  log4j and all other possible tools needed for developing and deploying a robust and secured automation framework in current IT industries.*

*In order to help you learn and understand the above framework, day-by-day we will discuss the* Java Basics and Introduction to Object-Oriented Programming concepts with hands-on activities.

These include but not limited to:

* Basic Architecture of a Complete Automated Framework
* Tricks and Tips of identifying Web objects
* Tools used to identify the Web UI in Chrome, Firefox, and Internet Explorer
* End to End API testing methods
* Automating Web applications in all supported Browsers
* Strategy to handle Rich Web UI using Advanced Web driver API
* Cross browser Testing with Selenium GRID and Parallel testing
* Load Testing with Selenium Web Driver
* Mobile testing with Selenium and Appium
* Performance testing with Selenium
* API Testing with Postman and SOAP UI
* *Data-driven test with Excel and Database access*
* *ANT/Maven, Cucumber, JUnit, TestNG, log4j, etc.*
* Continuous Integration setup with Maven and Jenkins

**Who are is the target audience?**

* It is you! Who has interest in learning Manual and/or Automation testing.
* Freshers /Graduates who want to kick off his next position in IT World

**What are the Requirements?**

* + You don’t need to have any previous programming /coding experience.
  + Should be updated with MS Office (MS Word, Excel and PowerPoint)
  + Different Operating Systems and Browsers
  + Fluency in English

***Most important is your Agile mindset and self-motivation!!***

**What am I going to learn from this course?**

* By the end of this course, you will know the advanced Manual and Automation testing
* You will get a good foundation of Object-Oriented Programming; and Web-based application development and automated testing fundamentals with JavaScript, Java and Selenium Web driver.
* We will help you to be prepared for related job interview.
* Ultimately, holding your hand we will teach you how to walk in the field of Manual and Automation testing; however, the only one thing you have to do is to run by yourself.
* That’s it.

**How long it will take for me in order to complete this Course?**

* Sorry we can’t give you any specific time frame.
* We have our average framework of four months; however, it is up to you that how agile and self-motivated you are!
* Ultimately you have to run by yourself!!

**What are the Course Materials?**

* We will provide you some amazing instructional materials.
* We will develop and provide you Bengali and English videos
* We will use our own authored following book.

**Support:**

* 100% support will be provided to install all required software (Only instruction)
* Numbers of real time projects(Course related)
* Edit and update your resume

**Note:  You may include something about Git and Github.**

**To me basics of Linux is so important for QA course**

**জাভা প্রোগ্রামিং এ টু জেড**

ড. মোক্তার হোসেন

http://www.systechpublications.com.bd/main/product/314

এই পুস্তকটি রচনার মূল উদ্দেশ্য হলো কমপিউটার প্রোগ্রামিং এবং অটোমেশন ইঞ্জিনিয়ারিং শেখা/চর্চার আগ্রহীদের বাস্তব জীবনের ব্যবহার উপযোগী প্রোগ্রাম ডিজাইন এবং ডেভেলপ করার পথ-নির্দেশনা দেয়া। জাভা সেলিনিয়াম, অটোমেশন এবং অবজেক্ট অরিয়েন্টেড প্রোগ্রামিং বিষয়ে আগ্রহী সব বয়সের শিক্ষার্থীদের জন্য পুস্তকটি  রচনা করা হয়েছে। স্নাতক শ্রেণি এবং ডিপ্লোমা কোর্সের শিক্ষার্থীরা পুস্তকটি পড়ে উপকৃত হবেন। স্বল্পকালীন ট্রেনিং এবং সার্টিফিকেট কোর্সের জন্য পুস্তকটি ব্যবহার করা যাবে।

বইটির উল্লেখযোগ্য বৈশিষ্ট্যগুলো হলোঃ

* উদাহরণের সাহায্যে জাভা ভাষার প্রোগ্রামিং পদ্ধতি উপস্থাপন
* অবজেক্ট অরিয়েন্টেড প্রোগ্রামিং বিষয়ে বিশদ বর্ণনা
* নমুনা ফলাফলসহ শতাধিক জাভা প্রোগ্রাম সংযোজন
* শতাধিক চিত্র, স্ক্রিনশট এবং ভিডিও লিংক
* জটিল বিষয় মনে রাখার কৌশল বর্ণনা
* ইন্টারভিউ প্রশ্নোত্তর এবং সোর্স কোড

বইটি সাধারণ ব্যবহারকারী থেকে শুরু করে দক্ষ প্রোগ্রামারদেরও যথেষ্ট উপকারে আসবে।