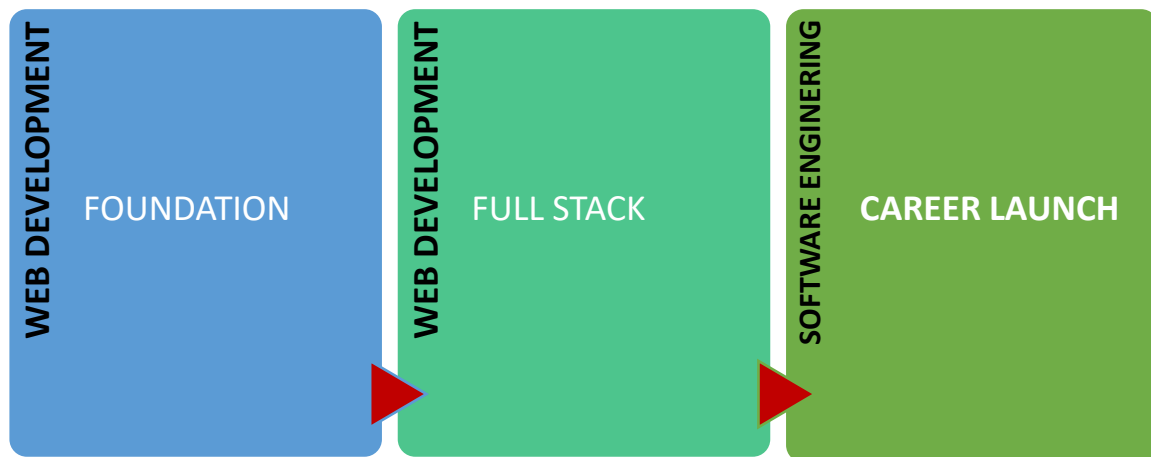




SOFTWARE ENGINEERING CAREER LAUNCHPAD

“Developing Job Ready Developers”



Let's become a creator of technology to build a financially rewarding career.

No matter who you are, what you do or where you work, your life is being shaped by changing technology. We can't stop this, but we can adapt our future to make the most of it.

That's where we come in, to make information technology both a knowledge, skill and an exciting experience for ANYONE.

හැඳින්වීම

හඳුන්වාදෙන Career Focused, Instructor Led, Live-Online, Affordable “**Software Engineering Career LaunchPad**” පුහුණුව, සැලසුම් කර ඇත්තේ මෘදුකාංග නිර්මාණකරණය හරහා සාර්ථක වෙන්න ආශා කරන ඕනෑම කෙනෙකුට, ආරම්භක මට්ටමේ සිට අවශ්‍යවන විවිධ කුසලතා සහ දැනුමෙන් ඔවුන් සන්නද්ධ කිරීම සඳහා ය.

අපගේ පළමු පාඨමාලාව වන, “Object-Oriented Programming with Java” මගින්, Object-Oriented Programming සංකල්ප ඇතුළුව Java Programming හි මූලික කරුණු ආවරණය කරයි. සිසුන් ජාවා භාවිතයෙන් Console Applications නිර්මාණය කිරීම, Exceptions හැසිරවීම සහ Inheritance, Encapsulation, Polymorphism සහ Abstraction වැනි OOP Concepts භාවිතා කිරීමෙහි ප්‍රායෝගික අත්දැකීම් ලබා ගනිමින් OOP හි ඔවුන්ගේ මූලික අධ්‍යාලම සකස් කර ගනී.

දෙවන පාඨමාලාව වන, “Database Management Systems with MSSQL” මගින්, විවිධ වර්ගයේ Database Management Systems පිළිබඳ දළ අදහස සහ Relational Databases පිළිබඳ කරුණු ආවරණය කරයි. අපගේ සිසුන් ER/EER Diagrams, Normalization Rules සහ Structured Query Language භාවිතයෙන් තමන්ගේම MSSQL Database එකක් සැලසුම් කරන්නේ කෙසේදැයි ඉගෙන ගනු ඇත.

“GUI Application Development with C#.Net” ලෙසින් නම් කර ඇති අපගේ තුන්වන පාඨමාලාවේදී, MSSQL Database connection සමඟින් Windows Forms Applications නිර්මාණය කරන ආකාරය සිසුන්ට ඉගැන්වීම කෙරෙහි අවධානය යොමු කර ඇත. මෙම කොටස අවසානයේ සිසුන් විසින් .Net Environment හි වැඩ කිරීම, Windows Forms User Interfaces නිර්මාණය කිරීම සහ ඒවායේ Create(Insert), Read, Update, Delete යනාදිය සිදු කරන ආකාරය ඉගෙන ගනු ඇත.

අවසාන වශයෙන්, අපගේ සිව්වන පාඨමාලාව වන, “RESTful API Development with ASP.Net and EF Core” මගින්, සරළ Angular Client Applications සමඟ ASP.Net Web API නිර්මාණය කරන ආකාරය සිසුන්ට ඉගැන්වීම කෙරෙහි අවධානය යොමු කරයි. EF Core භාවිතයෙන් Create(Insert), Read, Update, Delete Operations, Authentication, Authorization සහ EF Core මගින් Entity Relationships හසුරුවාගන්නා ආකාරය සිසුන් ඉගෙන ගනු ඇත.

අදම අප හා සම්බන්ධ වී දක්ෂ හා සාර්ථක Software Developer කෙනෙකු වීමට පළමු පියවර තබන්න!

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Let's Start

මෙම පුහුණුවේ විශේෂත්වය

- ඕනෑම අංශයක රැකියාවක් කරන අතර ඉගෙනීමට හැකිවීම.
- ඕනෑම අංශයක උපාධියක්, පාඨමාලාවක් කරන අතර ඉගෙනීමට හැකිවීම.
- දැරියහැකි මුදලකට ඉගෙනීමට හැකිවීම.
- ඉහළ ඉල්ලුමක් තියෙන මෘදුකාංග ඉංජිනේරුමය හැකියාවන් වර්ධනය කරගැනීමට හැකිවීම.
- ඔබේ පුහුණුකරු ඔබේ කුසලතා වේගයෙන් ගොඩනඟා ගැනීමට සහ ඔබේ වෘත්තීය වර්ධනය ඉදිරියට ගෙන යාමට උපකාර කරයි.
- සෑම සිසුවෙකුටම පවුල්ගලික අවධානය.

The **Software Engineering Career LaunchPad** training is designed to improve knowledge in multiple programming languages as well as both front and back-end development. You'll work through coding projects and exercises similar to the work that software engineers do daily.

Your instructor will help you build your skills faster and advance your professional growth.

ආවරණය වන කොටස්

1. Object-Oriented Programming with Java
2. Database Management Systems with MSSQL
3. Graphical User Interface Application Development with C#.Net
4. RESTful API Development with ASP.Net & EF Core

Prerequisite: Web Development Foundation OR Web Development – Full Stack.

අදම අප හා සම්බන්ධ වී දක්ෂ හා සාර්ථක Software Developer කෙනෙකු වීමට පළමු පියවර තබන්න!

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1.Object-Oriented Programming with Java

Introduction

This course on Object-Oriented Programming with Java introduces Java programming, covering basic programming fundamentals and concepts of Object-Oriented Programming. Through the course, students will gain practical knowledge of Java language, working with IntelliJ IDEA and creating simple console apps using Java. They will also learn to handle exceptions, use class, object, and constructors, apply inheritance, encapsulation, polymorphism, and abstraction in programming. By the end of the course, students will be able to create their own Java console application using OOP concepts. The course consists of 14 sessions over a period of 16 weeks, with a total of 28 lecture hours.

Learning Outcomes

At the end of this course, students should be able to:

1. Understand and Explain the Importance of Java.
2. Work with IntelliJ IDEA.
3. Construct simple console apps using Java language.
4. Handle exceptions using try catch blocks.
5. Explain the basic idea and importance of OOP.
6. Explain and use Class, Object and Constructors in Java.
7. Apply different types of Constructors in Java OOP.
8. Explain the concepts of Object-Oriented Programming.
9. Use Inheritance in programming.
10. Use Encapsulation in programming.
11. Use Polymorphism in programming.
12. Identify the Polymorphic behaviors.
13. Use Abstraction in programming.
14. Explain Java Interfaces with examples.
15. Create own java console application using OOP concepts.

Module 1: Introduction to Programming with Java		
Title	Lecture Hours	Learning Outcomes
Lesson 1: Introduction to Java	2	1
Lesson 2: Setting up Java development environment.	2	1,2
Lesson 3: Programming Fundamentals with Java.	2	2,3
Lesson 4: Exception handling (Basic Level)	2	4
Total	8	

Module 2: Object-Oriented Programming Concepts		
Title	Lecture Hours	Learning Outcomes
Lesson 1: Introduction to Object-Oriented Programming	1	5
Lesson 2: Classes and Objects.	1	6
Lesson 3: Constructors	2	7
Lesson 4: Inheritance	4	8,9
Lesson 5: Encapsulation	4	8,10
Lesson 6: Polymorphism	4	8,11,12
Lesson 7: Abstraction	4	8,13,14
Total	20	

Total Lecture Hours	28
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2. Database Management Systems with MSSQL

Introduction

This course on Database Management Systems with MSSQL covers the basics of database systems, different types of DBMSs, and relational databases. Students will learn how to apply ER/EER diagrams to real-world problems, understand relational model concepts and constraints, and apply normalization rules to database relations. The course also covers how to install and manage MSSQL databases, use Structured Query Language, and apply Data Definition and Manipulation Language. The course includes a project where students will design their own MSSQL database based on their own business idea. The course is divided into four modules that covering logical and physical design, installation, and configuration of MSSQL server, and physical design using SQL. The course is taught over a period of 20 weeks, with 23 sessions and a total of 46 lecture hours.

Learning Outcomes

At the end of this course, students should be able to:

1. Describe database systems in basic level.
2. Explain types of DBMSs.
3. Explain relational DBMSs.
4. Apply ER/EER diagrams for a real-world problem scenario.
5. Explain Relational Model concepts and Constraints.
6. Apply normalization rules to Normalize relations in a database.
7. Install MSSQL server and SSMS to Windows PC.
8. Explain how to use SSMS to manage MSSQL databases.
9. Explain about Structured Query Language.
10. Apply Data Definition Language to build the structure of database.
11. Apply Data Manipulation Language to control the data in created databases.
12. Describe and use Stored Procedures, Views, and Triggers in SQL Server with PL/SQL.
13. Design the MSSQL database logically and physically based on their own business idea.

Module 1: Introduction to DBMS		
Title	Lecture Hours	Learning Outcomes
Lesson 1: What is a Database Management System.	1	1
Lesson 2: Types of database management systems.	1	1,2
Lesson 3: Relational Databases.	2	2,3
Total	4	

Module 2: Logical Design		
Title	Hours	Outcomes
Lesson 1: ER and EER diagrams	8	4
Lesson 2: Relational Schema	4	5
Lesson 3: Normalization	4	6
Total	16	

Module 3: Installing and Configuring MSSQL Server		
Title	Hours	Outcomes
Lesson 1: Installing MSSQL Server with SSMS.	1	7
Lesson 2: Configuration and setup.	1	7
Lesson 3: MSSQL Server management tools.	2	8
Total	4	

Module 4: Physical Design (SQL)		
Title	Hours	Outcomes
Lesson 1: Introduction to SQL.	1	9
Lesson 2: Data Definition Language (DDL).	6	10
Lesson 3: Data Manipulation Language (DML).	10	11
Lesson 4: SQL cont.	5	11,12
Total	22	
Total Lecture Hours	46	

3. Graphical User Interface Application Development with C#.Net

Introduction

This course is designed to teach students how to develop Graphical User Interface (GUI) applications using C#.Net. The course is divided into four modules, starting with setting up the .Net environment and moving on to learning C# syntax and programming fundamentals. Students will then learn how to create a Windows Forms Application, identify its file structure, and use basic tools to create a user interface. The course will also cover how to perform CRUD operations using MSSQL database and connect it with Windows Forms Application. At the end of the course, students will be able to create their own Windows Forms Application with a MSSQL Database connection as the final project. The course is 8 weeks long with a total of 30 lecture hours.

Learning Outcomes

At the end of this course, students should be able to:

1. Setup the .Net environment required to develop windows forms applications.
2. Create a console application.
3. Use C# syntax, programming fundamentals properly.
4. Create a Windows Forms Application and identify the file structure.
5. Use the basic tools to create a user interface.
6. Change the properties of the tools as needed.
7. Identify the events generated.
8. Apply input validations and generate message boxes.
9. Explain CRUD operations using MSSQL.
10. Design an appropriate UI for a project.
11. Connect Windows Forms Application and MSSQL Database with Classes and Objects.
12. Explain how to perform CRUD operations using Windows Forms Applications with MSSQL database.
13. Create own Windows Forms Application with a MSSQL Database connection, as the final project.

Module 1: Setup the .Net environment		
Title	Lecture Hours	Learning Outcomes
Lesson 1: Installing Microsoft Visual Studio 2019	1	1
Lesson 2: Installing SQL Server Management Studio	1	1
Total	2	

Module 2: Introduction to C#		
Title	Lecture Hours	Learning Outcomes
Lesson 1: Creating a new project	0.5	2
Lesson 2: C# Syntax, Programming Fundamentals using Console Application	4.5	3
Total	5	

Module 3: Introduction to Windows Forms Applications		
Title	Lecture Hours	Learning Outcomes
Lesson 1: Creating a new project	0.5	4
Lesson 2: Identifying file structure	0.5	4
Lesson 3: Identifying tools and their properties	2	5,6
Lesson 4: Event handling	1	7
Lesson 5: Logical calculations with windows forms applications and message boxes	4	8
Total	8	

Module 4: Windows Forms Applications with MSSQL		
Title	Lecture Hours	Learning Outcomes
Lesson 1: Revising SQL CRUD operations (Insert, Update, Delete, Select/Read)	2	9
Lesson 2: UI design	4	10
Lesson 3: Create Database connection	1	10,11

Lesson 4: Performing CRUD operations using Windows Forms Application	8	10,11,12
Total	15	

Total Lecture Hours	30
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4. RESTful API Development with ASP.Net & EF Core

Introduction

This course is focused on teaching students how to develop RESTful APIs using ASP.Net and EF Core. The course covers various topics such as HTTP methods, status codes, and API security, as well as the deployment and consumption of the created endpoints using Angular clients. Students will be able to create a simple ASP.Net Web API project and implement CRUD operations, authentication, authorization, and entity relationships using EF Core. Additionally, students will create their own ASP.Net Web API project based on their business idea. The course has a total of 24 sessions and lasts for 12 weeks.

Learning Outcomes

At the end of this course, students should be able to:

1. Understand and explain the importance of RESTful API principles.
2. Explain the relationship between RESTful APIs, Microservices architecture, and Client-Server Architecture.
3. Explain HTTP methods and status codes with their meanings.
4. Construct a simple ASP.Net Web API project using Visual Studio.
5. Understand the project structure of ASP.Net Web API.
6. Understand and explain the Code-First approach and ORM tools with EF.
7. Install appropriate NuGet packages and continue with EF Core.
8. Understand how to work with model classes and DbContext with dependency injection.
9. Understand and explain the process of DB Migration with suitable commands.
10. Perform CRUD operations in the API practically using proper routing and HTTP methods.
11. Install the Postman tool on their own PCs by downloading it from the official website and use it to test the API endpoints.

12. Understand and explain the importance and difference between authentication and authorization.
13. Understand and implement the code to generate JSON Web Tokens.
14. Create a simple login endpoint with JWT.
15. Protect the API with JWT authentication and add JWT support to the Swagger UI.
16. Describe the concept of relationships between tables in SQL DB.
17. Support the relationships between database tables using EF Core.
18. Understand and query related data using Include and Join methods.
19. Understand and explain the deployment of a REST API.
20. Explain Azure as a beginner and start studying it if needed.
21. Deploy ASP.Net Web API and SQL DB using a free hosting service.
22. Install Visual Studio Code, NodeJS, and Angular CLI to create the first Angular project.
23. Connect the Angular app with ASP.Net Web API using HttpClient.
24. Handle the CORS policy of the API.
25. Create their own ASP.Net Web API with their own business idea.

Module 1: Introduction to ASP.Net Web API and RESTful APIs		
Title	Lecture Hours	Learning Outcomes
Lesson 1: Overview of ASP.Net Web API and RESTful API principles	2	1,2
Lesson 2: HTTP methods and status codes.	1	3
Lesson 3: Create First ASP.Net Web API Project	1	4,5
Total	4	

Module 2: Working with Data using Entity Framework Core		
Title	Lecture Hours	Learning Outcomes
Lesson 1: Role of the Entity Framework as an ORM tool.	1	6,7
Lesson 2: Creating a database context with Models.	1	8
Lesson 3: Migrations and database schema changes	1	9
Lesson 4: Implementing CRUD operations with ASP.Net Web API and EF Core	4	10
Lesson 5: Install Postman tool and test created endpoints with it.	1	11
Total	8	

Module 3: Securing ASP.Net Web APIs		
Title	Lecture Hours	Learning Outcomes
Lesson 1: Understanding authentication and authorization.	1	12
Lesson 2: Implementation for Generate JWT.	1	13
Lesson 3: Create a login endpoint with JWT.	1	13,14
Lesson 4: Protecting APIs with JWT authentication.	2	15
Total	5	

Module 4: Handle Entity Relationships with EF Core		
Title	Hours	Outcomes
Lesson 1: Understanding relationships between databases tables.	2	16
Lesson 2: Creating relationships in Entity Framework Core.	8	17
Lesson 3: Querying related data using Include and Join methods.	8	18
Total	18	

Module 5: Deployment		
Title	Hours	Outcomes
Lesson 1: Understanding What is Deployment.	1	19
Lesson 2: Introduction to Azure.	2	20
Lesson 3: Deploying created ASP.Net Web API with SQL DB.	2	21
Total	6	

Module 6: Introduction to consume created endpoints using Angular client		
Title	Hours	Outcomes
Lesson 1: Entry level Introduction to Angular.	1	22
Lesson 2: Create angular app to make requests using HTTP Client	4	22,23
Lesson 3: Handle the CORS Policy of the API.	1	24
Lesson 4: Guidelines to continue learning ASP.Net web API & Angular as a self-learner.	2	25
Total	7	
Total Lecture Hours	48	

TIME TABLE

1 st Month							
Week 1		Week 2		Week 3		Week 4	
Day 1	Day 2	Day 1	Day 2	Day 1	Day 2	Day 1	Day 2
OOP	DBMS	OOP	DBMS	OOP	DBMS	OOP	DBMS

2 nd Month							
Week 1		Week 2		Week 3		Week 4	
Day 1	Day 2	Day 1	Day 2	Day 1	Day 2	Day 1	Day 2
OOP	DBMS	OOP	DBMS	OOP	DBMS	OOP	DBMS

3 rd Month							
Week 1		Week 2		Week 3		Week 4	
Day 1	Day 2	Day 1	Day 2	Day 1	Day 2	Day 1	Day 2
OOP	DBMS	OOP	DBMS	OOP	DBMS	OOP	DBMS

4 th Month							
Week 1		Week 2		Week 3		Week 4	
Day 1	Day 2	Day 1	Day 2	Day 1	Day 2	Day 1	Day 2
OOP	DBMS	OOP	DBMS	OOP	DBMS	OOP	DBMS

5 th Month							
Week 1		Week 2		Week 3		Week 4	
Day 1	Day 2	Day 1	Day 2	Day 1	Day 2	Day 1	Day 2
DBMS	DBMS	DBMS	DBMS	DBMS	DBMS	DBMS	DBMS

6 th Month							
Week 1		Week 2		Week 3		Week 4	
Day 1	Day 2	Day 1	Day 2	Day 1	Day 2	Day 1	Day 2
GUI	GUI	GUI	GUI	GUI	GUI	GUI	GUI

7 th Month							
Week 1		Week 2		Week 3		Week 4	
Day 1	Day 2	Day 1	Day 2	Day 1	Day 2	Day 1	Day 2
GUI	GUI	GUI	GUI	GUI	GUI	GUI	GUI

8 th Month							
Week 1		Week 2		Week 3		Week 4	
Day 1	Day 2	Day 1	Day 2	Day 1	Day 2	Day 1	Day 2
ASP.Net	ASP.Net	ASP.Net	ASP.Net	ASP.Net	ASP.Net	ASP.Net	ASP.Net

9 th Month							
Week 1		Week 2		Week 3		Week 4	
Day 1	Day 2	Day 1	Day 2	Day 1	Day 2	Day 1	Day 2
ASP.Net	ASP.Net	ASP.Net	ASP.Net	ASP.Net	ASP.Net	ASP.Net	ASP.Net

10 th Month							
Week 1		Week 2		Week 3		Week 4	
Day 1	Day 2	Day 1	Day 2	Day 1	Day 2	Day 1	Day 2
ASP.Net	ASP.Net	ASP.Net	ASP.Net	ASP.Net	ASP.Net	ASP.Net	ASP.Net

NOTE: You will receive a detailed schedule with dates and times once you register for the training.

All the best for a financially rewarding future!

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වැඩි විස්තර: 0742833337 | www.plustechacademy.com

FAQ: Frequently Asked Questions

1. Does your education system help beginners? Definitely! We understand learning minds, whether they are young children or experienced adults - and have designed our knowledge sharing approach to suit every need.

2. How will learners' benefit? Each of our students will receive training to sharpen their skills to prepare for the most demanding jobs. Whether you are 6 or 60 years of age, you can join us with no necessary previous experience or qualifications.

- Shortest path for a financially rewarding Career in Tech.
- Empower through continuous coaching even after the completion of the training.
- Affordable, fast track courses to be employment ready.
- Industry focused dynamic curriculum.
- Spot talented students and give an opportunity so they can work wonders.

3. Are you a degree-awarding institution? We do not award any degrees or diplomas. We value hands-on technical competency, world-class skills and professional attitudes over certificates.

We want our students serve with excellence, in both skill and character.

4. Do you arrange job placements? While we like to help out, our priority is providing learners the opportunities to enhance their capabilities through training and showcase their abilities.

5. Will you support me to start my own business? Yes. In case you don't want to stay in the workforce any longer, we will guide you to build an entrepreneurial path related to the IT industry.

6. Are all your trainings free? No. Some of the trainings are "Pay As You Go" and have payment options that suit your needs. We also do our best to ensure students with financial difficulties are given maximum available concessions/support (so don't make money a limitation!).

7. Do you provide mentoring and guidance? Of course! At the heart of our academic empowerment model is continuous mentorship.

8. How do I join a class/training? You can register through our website – WWW.PLUSTECHACADEMY.COM. If you need help choosing a course, our mentors are happy to help on (mobile/WhatsApp) 0742833337.

9. Do you have training programmes for adults and senior citizens? Of course, we do, at your own schedule too! Call us on 0742833337 and our consultants guide you to success.

10. What kind of equipment does my child/I need, when learning?

All that's needed is a computer (laptop, desktop), web camera and microphone (built-in or external) and any kind of internet connection.

Developing digital skills will create opportunities for our students to reskill into better careers for roles that employers need now and in the future. **Got more questions? 0742833337**

Founder's Message: Let us help everyone fall in love with Computer Science.



Shaveen Fernando

Profile: <https://www.linkedin.com/in/shaveenfernando/>

I believe that everyone in this world has the right to live a life of dignity, prosperity & peace.

I started my software engineering career in 2003 and lead teams at leading travel technology solution companies providing solutions for the global hospitality industry. Currently I'm engaged in growing – Can Academy (Pvt) Ltd, +Tech Academy and SALT (Social Alliance for Love & Trust) having the aim of helping anyone springboard towards skills and excellence.

Business is more than making profits and building empires. I strongly believe that profit generation should not be the one and only goal for a business, but it is also important to make a lasting positive impact on people and society in general.

SDG Contribution: [Sustainable Development Goals](#)

