



LONDON SCHOOL
OF EMERGING TECHNOLOGY

JAVA SERVERLESS CLOUD

```
airlinesPar
)
System.out.print
Scanner keyboard
System.out.print(
String start = key
System.out.print("
String goal = keybo
ArrayList<String> pa
ArrayList<String> at
if( canRedeem(start,
System.out.printli
else
System.out.println
)
}
private static boolean canRedeem(
ArrayList<String> pathFrom
return isAirline network
```

COURSE ID

JSC

DEPARTMENT

SOFTWARE
ENGINEERING

CAMPUS

1 CORNHILL

LEVEL

CERTIFICATE

METHOD

LECTURE PROJECT

DURATION

3 MONTHS

Make your career in the next big thing in cloud computing. More and more companies are moving to serverless computing as it enables them to build agile event driven distributed applications faster.

**APPLY
NOW!**

TO BECOME A PROFESSIONAL SERVERLESS DEVELOPER



Prerequisites have been met

| Options | Topic | Add-On | Duration |
|----------|---|--|-----------|
| Option 1 | Java Serverless Cloud (Prior Knowledge of Java Required) | | 3 Months |
| Option 2 | Java Serverless Cloud (Prior Knowledge of Java Required) | Project | 5 Months |
| Option 3 | Java Serverless Cloud (Prior Knowledge of Java Required) | Project & Industrial Training and Paid Internship Program | 12 Months |

Prerequisites have not been met

| Options | Topic | Add-On | Duration |
|----------|------------------------------|--|-----------|
| Option 1 | Java + Java Serverless Cloud | | 4 Months |
| Option 2 | Java + Java Serverless Cloud |  Project | 6 Months |
| Option 3 | Java + Java Serverless Cloud |  Project &  Industrial Training and Paid Internship Program | 13 Months |

Note: Our Industrial Training and Internship program includes a guaranteed 6 months paid internship (from 10 hours to 40 hours per week) with a technology company. Due to visa restrictions, some international students may not be able to participate in this program.

Optional Add-on Programs

JOB GUARANTEE

Job Guarantee is an add-on program you can register with this course. You will need to clear an assessment interview to get enrolled. Once successful in the assessment, you will be offered Job Guarantee with this certificate course. There is a fee to join this program as it takes you to rigorous career development, interview preparation, mock interviews, etc. The fee for joining the Job Guarantee add-on program is £500. This is a 12 months program which starts at the end of your certificate course. As part of this program, we represent you to the prospective employers and train on career development elements...

You need to abide by the rules of this program which you can find on the Job Guarantee page. If we can't find you a relevant job or you don't find it by yourself in the similar industry in any part of the world within these 12 months, we will refund you the course fee + Job Guarantee program fee. The refund process will start after the end of the 12 months and every month we will pay £500 until the entire fee is paid back. But if you find a relevant job during this time then the remaining payments will be stopped. This program is only applicable to home students (UK permanent residents / citizens).

INDUSTRIAL TRAINING

LSET offers an optional add-on industry training program to its students. Students wishing to enrol in this program require to pay fee of £2000 to receive training from industry experts at IT companies in the US or UK. This is a month-long program which takes place at the host company's location. Interested students need to go through an assessment and host company's interview process to be accepted in the program.



Java Serverless Cloud course is intended for students who wish to make career as a cloud developer whose main job will include developing event-driven, microservice-based applications on AWS cloud. Students wishing to enrol in this course should have knowledge of Java and web technologies like HTML, CSS, and JavaScript. In this course, you will learn about AWS Lambda concepts for ephemeral states, concurrency, cold and warm starts, event sources, memory and time-out settings, and invocation models.



As a capstone project, you will develop an application on the AWS Cloud by using various cloud tools like Amazon EventBridge, Amazon Simple Notification Service (SNS), Amazon Simple Queue Service (SQS), Amazon Kinesis, etc. We put emphasis on teaching best practices and writing performance driven Lambda functions. At the end of the capstone project, you will learn how to use AWS frameworks to deploy your serverless application on the AWS cloud. We take hands-on approach to teach complex topics in an easy manner.

In addition to the above, student will learn the three pillars of observability which are monitoring, tracing, and logging which help to keep control of cost, optimise performance, and application resilience. You will use AWS X-Ray to analyse and debug distributed applications and Amazon CloudWatch to monitor system performance.



TECHNOLOGIES COVERED

AWS Lambda: AWS Lambda is a serverless, event-driven compute service which enable us to run code as backend service without provisioning or managing servers. Lambda can be triggered from over 200 AWS services and software as a service (SaaS) applications.

AWS S3: Amazon Simple Storage Service (Amazon S3) is an object storage service which can be used to store various types

of files. It promises scalability, data availability, security, and performance. Companies can store data for any use like data lakes, cloud-native applications, and mobile apps.

AWS SNS: Amazon Simple Notification Service (Amazon SNS) is a fully managed scalable messaging service. It is a pub/sub model which provides topics for high-throughput, push-based, many-to-many messaging between distributed systems, microservices, and event-driven serverless applications.

AWS SQS: Amazon Simple Queue Service (SQS) is a fully managed message queuing service. It allows us to decouple and scale microservices, distributed systems, and serverless applications. SQS simplifies the management and operation of message-oriented middleware. SQS allows us to send, store, and receive messages between software components at any volume, without losing messages or requiring other services to be available.



COMPLEMENTARY WORKSHOPS



GIT MANAGEMENT



**AGILE PROJECT
MANAGEMENT**



TEAM BUILDING



**PERSONALITY
DEVELOPMENT**



INTERVIEW PREPARATION

COURSE INFORMATION

COURSE INTAKES



SEPTEMBER

END: DECEMBER



JANUARY

END: APRIL



MAY

END: AUGUST

ENTRY CRITERIA

- »»»» Prior knowledge of Java is required Or Java Programming Certificate
- »»»» Prior knowledge of HTML, CSS, and Javascript is required Or Front End Development Certificate
- »»»» Basic Understanding of English
- »»»» Basic Proficiency with Computers
- »»»» Ability to work in Group



COURSE HIGHLIGHTS

- »»»» Hands-on Sessions
- »»»» Project-based Learning
- »»»» Live or Offline Capstone Project
- »»»» Real world development experience
- »»»» Industry Mentors
- »»»» Interactive Teaching Methodologies

EVALUATION CRITERIA

- »»» 18 Coding exercises
- »»» 5 Assignments
- »»» 5 Quizzes
- »»» Capstone Project
- »»» Group activities
- »»» Presentations



LEARNING OBJECTIVES

- » Get hands-on experience on developing serverless applications
- » Gain knowledge of event driven distributed development
- » Understand the use of Git and CI tools like Jenkins
- » Learn key technologies involved in serverless development
- » Learn serverless architecture and patterns
- » Gain knowledge of logging and monitoring cloud services



WEEKDAYS BATCH
5:30 PM – 7:30 PM
(WED, THU, FRI)



WEEKENDS BATCH
9:00 AM TO 12:00 AM
(SAT, SUN)



INTERVIEW PREPARATION
WEDNESDAY
(4 WORKSHOPS)



HANDS-ON WORKSHOPS
THURSDAY
(2 WORKSHOPS)



PERSONALITY DEVELOPMENT
FRIDAY
(1 WORKSHOP)



HANDS-ON WORKSHOPS



INTERVIEW PREPARATION



CV PREPARATION



PERSONALITY DEVELOPMENT

Join the LSET Java Serverless Cloud Development course to master the fundamentals of Serverless Programming and AWS Lambda. LSET follows project-based, hand-on approach to develop real-world applications using latest industry standards.

COURSE CONTENT

Browse the LSET interactive and practical curriculum

Introduction

- Course Introduction
- How to make the best of this course
- GIT Introduction and Setup
- Course Induction
- Student Introduction

Serverless Fundamentals

- Serverless Programming
- Nano Services
- What is AWS Lambda
- Function as a Service (FaaS)
- Usecases
- Create First Lambda
- The Lambda Workflow
- Invocation Types and Modes

Useful Tools

- Introduction
- Setup an AWS Account
- AWS SAM
- Create IAM User
- Install AWS and SAM CLIs
- Configure AWS CLI
- Install Java Maven and Eclipse
- Install Postman
- Install Visual Studio Code IDE
- YAML Syntax
- AWS Serverless Documentation



Create a Serverless Project

- Introduction
- Create a SAM Project
- SAM build
- SAM deploy
- Back to Earth (Hello World Program)
- Passing Parameters
- template.yaml
- pom.xml
- Maven Shade Plugin
- Local Testing
- Access Logs
- Security

Parameters and Return types

- Introduction
- Simple Types
- Lists
- Maps
- Map of lists
- Pojos
- Input and Output Streams
- Context Object
- Configure Timeout
- Set and Read Environment Variables
- Variables in Lambdas
- Cold start basics
- Invoke Remotely From Command Line

Create Serverless API

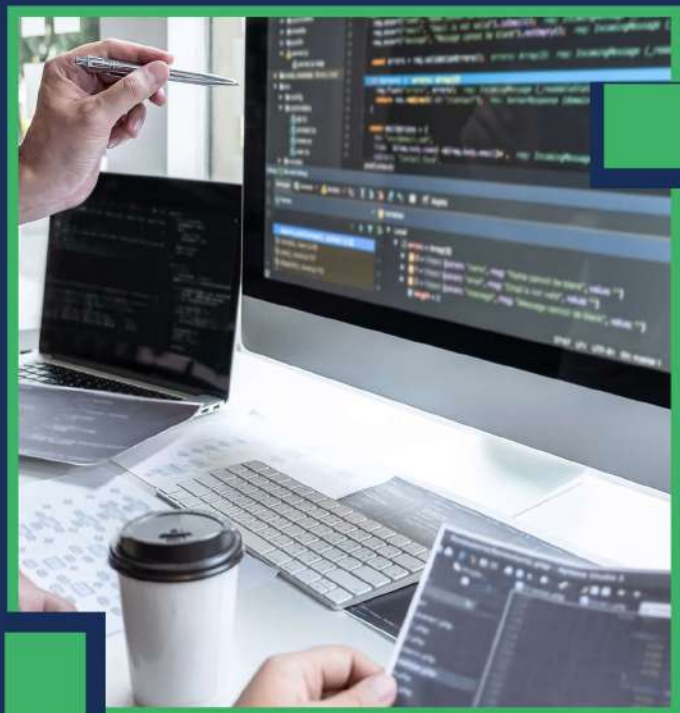
- Synchronous Usecase
- API Gateway Quick Review
- DynamoDB Quick Review



- APIs and SDKs
- Security
- SAM Template
- Cloud Formation Intrinsic Functions
- Create Project
- Create Order Lambda
- Bind API Gateway to trigger Lambda
- Deploy and Test
- Create and configure read orders lambda
- Test Read Orders
- Local Testing
- Use Global Properties
- Create Table Resource
- Create Item
- Read Items
- Configure Security Policies
- Deploy and Test
- Output Resource Info
- Use GetAttr Intrinsic function
- Refactoring

Asynchronous Usecase

- Introduction
- S3 Quick Review
- API and SDKs
- SAM Template
- Create the project
- Create Model and Lambda Classes
- Implement the PatientCheckoutLambda
- Configure Lambda and resources
- Test
- Configure SNS Topic
- Publish Messages
- Implement OrderManagementLambda



- Configure OrderManagementLambda and Resources
- Test Complete WorkFlow
- Refactoring

Logging and Error Handling

- Using Sysout Statements
- Using Lambda Context Logger
- Using Log4J
- Test Log4j logs
- Error Handling
- Create ErrorHandler Lambda
- Configure Dead Letter Queue and Error Handler
- Delete Stack
- Deploy and Test

SQS as Event Source

- Introduction
- Usecase
- Create Lambda Function
- Configure Lambda and resources
- Deploy and Test

Important Concepts

- Scaling
- Cold Start
- Cold Start Demo
- Multi Threading

*Modules of our curriculum are subject to change. We update our curriculum based on the new releases of the libraries, frameworks, Software, etc. Students will be informed about the final curriculum in the course induction class.

ASSESSMENT CRITERIA

To earn the certificate, students must clear all the assessments, quizzes, and project work. At a minimum, students are required to satisfy the pass criteria of the course. Students who score 75% or more will be awarded Merit Grade, while students with 85% or more will be awarded, Distinction Grade.

FOLLOWING ARE THE DETAILED CRITERIA FOR EACH LEVEL

PASS GRADE CRITERIA

Score a minimum of 50% aggregate and demonstrate the following;

- ➔ Proficiency in the technical skills and techniques
- ➔ Must have a minimum attendance of 90% in the classes unless proper medical proof is provided
- ➔ Submit all the projects and assignments before the last submission date
- ➔ Collaborate with peers in group projects



MERIT GRADE CRITERIA

Score a minimum of 75% aggregate and demonstrate the following;

- ➔ Excellent technical skills and techniques
- ➔ Discover and apply strategies to find the perfect solutions
- ➔ Select/design and apply appropriate methods/techniques
- ➔ Present and communicate appropriate findings



DISTINCTION GRADE CRITERIA

Score a minimum 85% aggregate and demonstrate the following;

- ➔ Mastery of technical skills and techniques
- ➔ Use critical thinking for self-evaluation and justify valid conclusions
- ➔ Take the responsibility to manage and organise activities and teams
- ➔ Showcase convergent/lateral/creative thinking.



ASSESSMENT METHODS

LSET follows strict uniform standards in assessing students' performance during the certificate course. This ensures that the LSET certificate holders demonstrate high ethics and deep technical knowledge. Internal and external examiners will assess the students, while the platform will automatically evaluate the quizzes. Instructors are internal examiners who only assess students' soft skills. At the same time, the external examiners are responsible for assessing students' assessments and project work.

INTERNAL EVALUATION

Instructors only evaluate students on the following, contributing to 20% of the total score. The total points that can be earned are 100.

- ➔ **Punctuality [10 points]:** Students are expected to show punctuality with their attendance, presence, and project/assignment submission time.
- ➔ **Dedication [10 points]:** LSET expects the students to give attention and show dedication throughout the curriculum.

- ➔ **Time Management [10 points]:** Students should show good time management by completing and submitting their assignments on time. Time management is crucial for students to prepare for the real work environment.
- ➔ **Attendance [10 points]:** Minimum of 90% attendance is required unless a proper reason with evidence is provided. Attendance in LSET classes is important to ensure that the student has thoroughly learned the technical and non-technical concepts taught in the curriculum.
- ➔ **Working with Others (Teamwork) [10 points]:** LSET teaches concepts in a collaborative environment where we expect each student to show teamwork and collaboration skills.
- ➔ **Problem-Solving Skills [10 points]:** Students must demonstrate proper problem-solving skills. Students need to use the knowledge and skills gained in the course to solve real-world problems.
- ➔ **Class Participation [10 points]:** Engagement and participation are crucial to ensure the interactive learning experience.
- ➔ **Communication Skills [10 points]:** Students should display formal communication skills to communicate with their teammates. This prepares them for their future workplace.
- ➔ **Presentation Skills [10 points]:** Students must show their presentation skills while working on their group projects and assignments to become more presentable.
- ➔ **Ability to ask Questions [10 points]:** Students should ask relevant questions in the classes to encourage healthy discussion on technical topics.



EXTERNAL EVALUATION

External examiners evaluate students on the following, contributing to 70% of the total score. The total points that can be earned are 250.

➡ **5 Assessments [10 points per assessment]:** These assessments are done entirely based on how the student has performed in understanding the lessons and concepts taught by the instructor.

➡ **1 Capstone Project [200 points]:** The capstone project is conducted at the end of the certificate course to practice all the practical concepts. Students must satisfy the criteria mentioned in the project requirement document to earn full points.

AUTO EVALUATION

Auto evaluation will be conducted via the platform, contributing 10% of the total score. The total points that can be earned are 50

➡ **5 Quizzes [10 points per quiz]:** Quizzes in a class ensure maximum participation and ensure that the students have learned the taught concepts with attention. Students will be presented with multiple-choice questions.



HAVING DOUBTS?

CONTACT LSET COUNSELLOR

We love to answer questions, empower students, and motivate professionals. Feel free to fill out the form and clear up your doubts related to our Java Serverless Developer Course.



BEST CAREER PATHS



OPERATIONAL SUPPORT ENGINEER

This professional has to monitor and provide solutions to any reported issues within a company's operational tooling. They also provide assistance for environment upgrades.



AWS SYSOPS ADMINISTRATOR

These professionals are responsible for providing care for the installation, configuration, and operation of virtual systems and related infrastructures. They also have to maintain analytics.



SENIOR AWS CLOUD ARCHITECT

This professional has to work with the customers and engineers directly. They provide technical leadership and a bridge for client-side stakeholders. It is their duty to deliver technical architectures.



AWS SOLUTIONS ARCHITECT

These professionals have required for architecting, building, and maintaining scalable and cost-effective AWS solutions. They also provide recommendations for AWS toolsets.





DEVOPS ENGINEER

This technical professional has to work closely with code releases. They have to introduce new tools, processes, and methodologies throughout the software development cycle.



CLOUD DEVELOPER

This professional has to develop enterprise-level applications and services. They have intensive knowledge and work experience of common cloud orchestration tools.

TOP COMPANIES HIRING SERVERLESS DEVELOPERS



THE COURSE PROVIDES SHARED EXPERTISE BY



LSET TRAINERS



INDUSTRY EXPERTS



TOP EMPLOYERS



SKILLS YOU WILL GAIN

»»» System and Network Administration

»»» Server Infrastructure Management

»»» MY SQL

»»» AWS CLI

»»» OPENSTACK

»»» GIT

»»» Datacenter Operations

Unix, Windows, Linux etc

»»» AWS Components

S3, EC2, VPC, Redshift, Elastic Beanstalk, EBS, Security Groups, ElastiCache, RDS, DynamoDB

»»» AWS Cloud Infrastructure

IAAS, SAAS, PAAS



COMPLETE LEARNING EXPERIENCE

This course provides a hands-on, guided learning experience to help you learn the fundamentals practically.

»»» We constantly update the curriculum to include the latest releases and features.

»»» We focus on teaching the industry's best practices and standards.

»»» We let you explore the topics through guided hands-on sessions.

»»» We provide industry professional mentor support to every student.

»»» We give you an opportunity to work on real world examples.



- »»» Work with hands-on projects and assignments.
- »»» We help you build a technical portfolio that you can present to prospective employers.

REASONS TO CHOOSE LSET

- »»» Interactive live sessions by industry experts.
- »»» Practical classes with project-based learning with hands-on activities.
- »»» International learning platform to promote collaboration and teamwork.
- »»» Most up-to-date course curriculum based on current industry demand.
- »»» Gain access to various e-learning resources.
- »»» One-to-one attention to ensure maximum participation in the classes.
- »»» Lifetime career guidance to get the students employed in good companies.
- »»» Free lifetime membership to the LSET Alumni Club



WHAT WILL BE YOUR RESPONSIBILITIES?

- »»» Work creatively in a problem-solving environment.
- »»» Ask questions and participate in class discussions.
- »»» Work on assignments and quizzes promptly.
- »»» Read additional resources on the course topics and ask questions in class.
- »»» Actively participate in team projects and presentations.
- »»» Work with the career development department to prepare for interviews
- »»» Respond promptly to the instructors, student service officers, career development officers, etc.
- »»» And most importantly, have fun while learning at LSET.



HOW DOES PROJECT-BASED LEARNING WORK?

LSET project-based learning model allows students to work on real-world applications and apply their knowledge and skills gained in the course to build high-performing industry-grade applications. As part of this course, students learn agile project management concepts, tools, and techniques to work on the assigned project collaboratively. Each student completes project work individually but is encouraged to enhance their solution by collaborating with their teammates.

Following are the steps involved in the LSET's project-based learning;

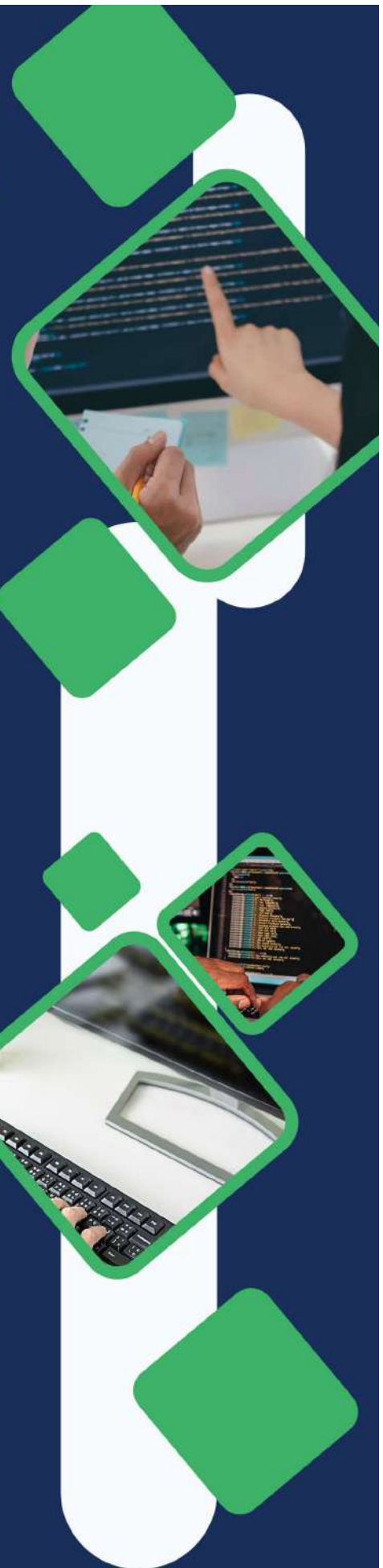
STEP 1: PROJECT IDEA DISCUSSION

In this step, students get introduced to the problem and develop a strategy to build the solution.



STEP 2: BUILD PRODUCT BACKLOG

This step requires students to enhance the existing starter product backlog available in the project. This helps students to think about real-life business requirements and formulate them in good user stories.



STEP 3: DESIGN RELEASES AND SPRINTS

In this step, students define software releases and plan sprints for each release. Students must go through sprint planning individually and learn about story points and velocity.



STEP 4: UNIT AND INTEGRATION TESTS

In this step, students learn to write unit tests to ensure every application part works fine.



STEP 5: USE CICD TO DEPLOY

In this step, students learn to use CICD (Continuous Integration Continuous Delivery) pipeline to build their application as a docker image and deploy it to Kubernetes.

CAPSTONE PROJECT

LSET gives you an opportunity to work on the real world project which will greatly help you to build your technical portfolio



PROJECT TOPIC: ONLINE BANKING

London has been a leading international financial centre since the 19th century. In recent years, London has seen many FinTech start-ups and significant innovations in the banking sector. This project aims to introduce students to the financial industry and technologies used to handle billions of daily transactions. As part of this project, students will learn the current technological advances and build up their knowledge to start a simple banking application. This application uses agile project management practices to build basic functionality. Students will be presented with user stories to create the initial project backlog. Students need to enhance this backlog by adding more relevant user stories and working on them.

LSET emphasises project-based learning as it allows the students to master the course content by going through near real-world work experience. LSET projects are carefully designed to teach the industry-required skills and mindset. It motivates the students on various essential aspects like learning to work in teams, improving communication with peers, taking the initiative to look for innovative solutions, enhancing problem-solving skills, understanding the end user requirements to build user-specific products, etc.



Capstone Projects build students' confidence in handling projects and applying their newly learned skills to solve real-world problems. This allows the students to reflect upon their learning and find the opportunity to get the most out of the course.

LEARNING OUTCOME

- ➔ Students will learn to work in an agile environment
- ➔ Students will learn the agile project management terms used in the industry, like product backlog, user stories, story points, epics, etc.
- ➔ Students will learn to use a Git repository and understand the concepts like commit, pull, push, branch, etc.
- ➔ Students will learn to communicate in a team environment and effectively express their ideas.

GUIDANCE AND HELP

A dedicated project coordinator who can mentor students on the process will be assigned to this project. Students can also avail of the instructor's hours as and when needed. LSET may get an industry expert with subject-specific experience to help students understand the industry and its challenges.

EXECUTION PROCESS

This project will be carried out in steps. Each step teaches students a specific aspect of the subject and development paradigm. Following are the steps students will follow to complete this project.

PHASE 1: PROJECT INTRODUCTION SELF STUDY [6 DAYS]

In the first step, students will learn about the financial industry and review the project introduction documentation to build up the subject knowledge. This is a self-learning stage; however, instructor hours are available if required.



PHASE 2: PROJECT BUILD-UP AND ENVIRONMENT SETUP **[2 DAYS]**

In this step, students are required to follow the project guide to set up the development environment. The project document guides students to find and connect to the LSET Git repository and install the necessary libraries or tools.

PHASE 3: PRODUCT BACKLOG AND SPRINT PLANNING **[2 DAYS]**

In this step, students will use the existing product backlog and enhance it per their project scope. Students can seek help from the project coordinator and the instructor. The project coordinator will help students do sprint planning and assign story points to the stories. This process is meant to give students real-world work environment experience. Students can consider this a mock exercise on agile project management practices.

PHASE 4: USER STORIES EXECUTION AND DEVELOPMENT [12 DAYS]

Students will work on the user stories identified in the Step 3 process in this step. Students will write code and algorithms to complete the development objectives. The project coordinator will be available to help students to guide them on the development and answer any questions they may have. Students can also discuss this with the instructor.

PHASE 5: TESTING, DEPLOYMENT AND COMPLETION [5 DAYS]

In this step, students will test and deploy the application to the cloud environment. Students will experience the deployment process in the cloud and learn the best practices. After the successful deployment, students will present their project to the instructor and the external project reviewer. Feedback will be given to the students. Students will have one week to work on the feedback and submit the final copy of the project, which will be sent to the external examiner for evaluation.



PROJECT PRESENTATION

LSET emphasises preparing students for the work environment by allowing them to learn the required soft skills. After completing the project, students must present their work to the instructor and an invited project reviewer panel. Please note that the assigned external examiner will not be part of this panel and hence will not know about the students. This ensures an unbiased assessment by the external examiner. This exercise aims to allow students to experience an environment they may face in their actual job. Also, it gives them a chance to get feedback from industry experts who can guide students on various parts of the project. This will help students to learn and fix anything they find necessary in their project. This ensures quality output and allows students to learn about industry requirements.

The instructor and the project reviewer panel will assess the students on the following;

PROJECT REPOSITORY ON GITHUB [10 POINTS]:

The instructor will ensure that the students have uploaded the project repository to the LSET's GitHub account per the guidelines in the project requirement documentation. Full points will be awarded if the repository is appropriately set up per the instructions.

PRESENTATION SKILLS [20 POINTS]:

Students must present their work in the given timeframe. Full points will be awarded if students cover everything needed to deliver their work in the given timeframe.

COMMUNICATION SKILLS [20 POINTS]:

Students must present their work in a manner understandable by all the participants. More focus will be given to how students communicate, not the language. Full points will be awarded if students can share their work correctly.



EVALUATION CRITERIA

LSET promotes a transparent and unbiased evaluation process. All the external examiners will follow a set process to grade students. No student's personal or identifying information will be shared with the external examiners, so they will not know about the person they are grading. They will only get the project files and grading guidelines to follow. This will ensure equal quality standards across the institute.

Following are some critical areas the LSET external examiners will be grading on.

PROJECT DOCUMENTATION [10 POINTS]:

Project documentation is filed correctly with the information which can be used to understand the project work. Students can use the supplied project documentation template to fill up the data. External examiner to confirm if all the information is filled up. Full points will be awarded if all the sections are covered.

PROJECT STRUCTURE [10 POINTS]:

Students must follow the proper structure while developing their projects. This structure is being taught and covered in the project requirement documentation. External examiner to confirm if the project files are correctly structured. Full points will be awarded if the structure meets the given guideline.

SOLVES BASIC PROBLEM [50 POINTS]:

Students must ensure that they implement all the requirements in the project documentation. External examiner to confirm if the project solves the given problem. Full points will be awarded if the students include everything asked in the project requirement.



INNOVATION [20 POINTS]:

Students are encouraged to bring new ideas into their development. They can improve the design, use new design patterns, code with a better coding style, or add a feature. External examiner to confirm if the students have added more than the requirement to improve the design or solution. The new addition must include a new feature and should not be similar to the requirements given. Full points will be awarded if the external examiner finds an innovation or see students going beyond the asked requirements.

BEST PRACTICES [20 POINTS]:

Students must follow the best practices in their development. This will help them to become a quality resource for their prospective employer. External examiner to confirm if the supplied best practices are followed in the project. Full points will be awarded if the best practices are properly implemented.



PERFORMANCE CONSIDERATION [20 POINTS]:

Students must consider performance while working on their projects. Performance is one of the critical industry requirements. External examiner to confirm if the student thought the performance improvements in the project. Full points will be awarded if the external examiner sees efforts taken to consider performance aspects in the development.

SECURITY STRUCTURE [20 POINTS]:

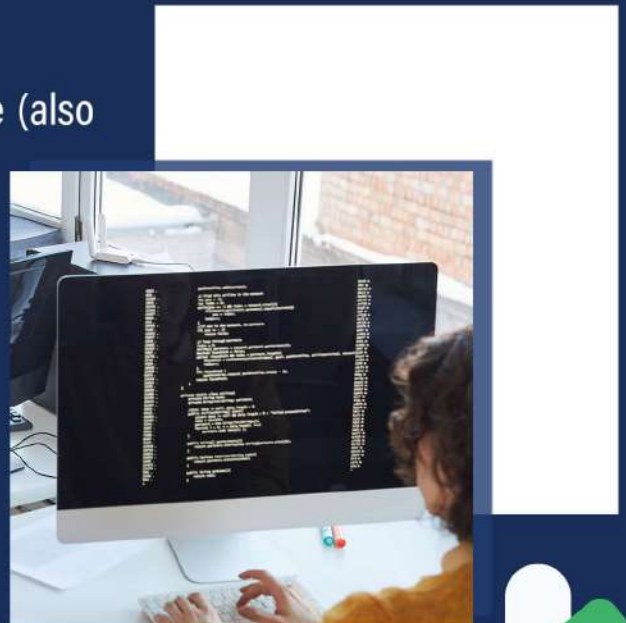
Students need to consider the security aspect if applicable in the design and development. External examiner to confirm if the security consideration is appropriate in this project; if it is applicable, the examiner to verify if the student has considered the security elements in the project. Full points will be awarded if the external examiner sees efforts taken to assess the security aspect of the development.



SERVERLESS FUNDAMENTALS

Learn about AWS tools to develop serverless applications

- ▶▶▶▶ Gaining expertise over the fundamentals of AWS Lambda and Serverless Programming
- ▶▶▶▶ Developing Lambda Function with the help of AWS console
- ▶▶▶▶ Installing the necessary tools for creating and deploying Serverless Projects from the command line
- ▶▶▶▶ Understanding the method signature and data that can be transferred to and taken from a Lambda Function
- ▶▶▶▶ Understanding the YAML Syntax necessary for creating SAM template files
- ▶▶▶▶ Creating projects with SAM CLI
- ▶▶▶▶ Learning a Serverless Project's structure
- ▶▶▶▶ Building and deploying Function as Code (also known as FAAS)
- ▶▶▶▶ Testing and evaluating the functions remotely, locally and on the cloud
- ▶▶▶▶ Creating and cleaning up the whole infrastructure necessary for the project with one command
- ▶▶▶▶ Creating serverless APIs with AWS Lambda functions, API Gateway, and Dynamo DB
- ▶▶▶▶ Learning to use AWS APIs and SDKs to work with different components systematically
- ▶▶▶▶ Handling ASync use-case with S3 and SNS as triggers
- ▶▶▶▶ Working on Logging with Log4j
- ▶▶▶▶ Handling errors patiently for configuring Dead letter Queues



- »»» Understand about Cold Start
- »»» Working with Scaling of Lambda Functions
- »»» And much more in an easier way
- »»» Working with the Lambda environment information

BENEFITS OF LSET CERTIFICATE

Earning the LSET Certificate means you have demonstrated hard-working capabilities and learnt the latest technologies by completing hands-on exercises and real-world projects.

Following are some of the traits employers can trust you have built up through your course;

- »»» You know how to work in a team environment and communicate well.
- »»» You know the tools which are necessary for your desired job.
- »»» You know how to use the latest technologies to develop technologically advanced solutions.
- »»» You have developed problem-solving skills to navigate complex problem scenarios and find the right solutions.
- »»» You are now ready to take on the challenge and help your prospective employer to build the desired solutions.



WHAT TO EXPECT AFTER COMPLETING THE COURSE?

After earning your certificate from LSET, you can join the LSET's Alumni club. There are countless benefits associated with the Alumni Club membership. As a member of LSET Alumni, you can expect the following;

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- »»» Advice you on choosing the right job based on your passion and goals
- »»» Connect you with industry experts for career progression
- »»» Provide you opportunities to participate in events to keep yourself updated
- »»» Provide you with a chance to contribute to the game-changing open-source projects
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TOOLS & TECHNOLOGIES YOU WILL LEARN FROM THIS COURSE



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