**Development Setup**

Setting Up AWS Lambda Development with Java in InteliJ IDEA

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# Introduction

This guide outlines the steps to configure your development environment for building AWS Lambda functions with Java in InteliJ IDEA.

# Prerequisites

* Java JDK (version 21)
* InteliJ IDEA
* AWS CLI installed and configured
* AWS SAM CLI installed and configured
* AWS Toolkit for InteliJ plugin installed
* Docker for InteliJ plugin installed
* Maven
* AWS Access Key

# Step-by-Step Setup

## **Install AWS CLI**

Install AWS CLI and update instructions follow your operating system.

<https://docs.aws.amazon.com/cli/latest/userguide/getting-started-install.html>

## **Install AWS SAM CLI**

Install AWS SAM CLI and update instructions follow your operating system.

<https://docs.aws.amazon.com/serverless-application-model/latest/developerguide/install-sam-cli.html>

## **Configure AWS Credential**

Install AWS SAM CLI and update instructions follow your operating system.

Terminal> aws configure

**Note:** AWS Access Key ID & AWS Secret Key are generated on AWS Console

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Verify Configuration

Terminal> aws get-calller-identity

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## **Install Docker plugin for InteliJ**

* Open InteliJ IDEA
* Go To **Plugins**
* Search for **Docker** and click **Install**
* Restart InteliJ after installation

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## **Install AWS Toolkit plugin for InteliJ**

* Open InteliJ IDEA
* Go To **Plugins**
* Search for **AWS Toolkit** and click **Install**
* Restart InteliJ after installation

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## **Configure SAM CLI Executable**

* Open InteliJ IDEA
* Go To **Customize**
* Click **All settings..**
* Go To > **Tools**> **AWS** > **AWS Toolkit**
* Set SAM Cli executable to **/usr/local/bin/sam**

**Note:** SAM Cli path for window: c:\Program Files\Amazon\AWSSAMCLI\sam.cmd

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# Create New AWS Lambda Project

* Open InteliJ IDEA
* Go To **Project**
* Click **New Project**
* Choose **AWS** > **AWS Serverless Application**

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* Click **Next**
* Input **Project Name**
* Input **Project Location**
* Select Runtime : **java21**
* Select Architecture: **x86\_64**
* Select SAM Template: **(Maven)**
* Select SDK: **21**

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# Execute Lambda Function

## **Template.yaml**

Run/Debug local lambda function

* Select endpoint and click run icon

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* Go to **Modify Run Configuration**  > **Input** > **Text** > **API Gateway AWS Proxy**

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Note: Alternatively you can select **File** > locate **event.json** file in **event** folder

* Check execution output

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## **App Source code**

Run/Debug local lambda function

* Select entry point.
* Select **Run Local**

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* Select **Modify Run Configuration** > **Input** > **Text** > **API Gateway AWS Proxy**

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Note: Alternatively you can select **File** > locate **event.json** file in **event** folder

* Check execution output

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## **Configure Environment Variable**

* Go to **Run> Edit Configurations**  > **Environment Variables**
* Add/Remove variable

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