

**Data to Dashboards** <

Data to Dashboard - Real-time Data Processing and Analysis

Prerequisites

Introduction

Ingesting Real-time Data Streams

▼ Data Processing using Amazon Managed Apache Flink

Overview

Preparation

Run Studio Notebook

► Deliver Processed Data using Amazon Data Firehose

► Visualize Real-time data using Amazon QuickSight

Conclusion & Next Steps

▼ AWS account access

[Open AWS console \(us-east-1\)](#) [Get AWS CLI credentials](#)

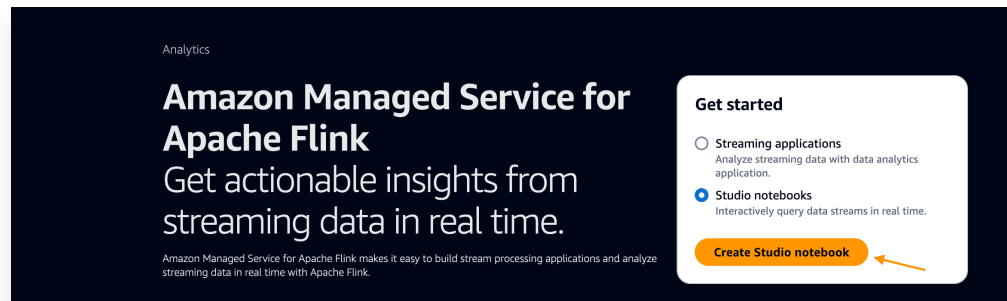
Exit event

[Event dashboard](#) > [Data Processing using Amazon Managed Apache Flink](#) > Preparation

Preparation

Setup Apache Flink Studio Notebook

1. Navigate to the Amazon Managed Apache Flink [Console](#) and select Studio notebooks. Select **Create Studio notebook**.



2. Choose **Quick create with sample code**. Provide studio notebook name **gameanalysis**.

[Managed Apache Flink](#) > [Studio](#) > Create Studio notebook**Create Studio notebook** [Info](#)

You use a Studio notebook to develop your application visually using Apache Zeppelin. Apache Zeppelin is a browser-based IDE for managing code, computation inputs and outputs, visualizations, and labels.

Choose a method to setup the Studio notebook

Choose quick create where Managed Service for Apache Flink creates and sets up all the resources that you need to get started. Alternatively, you can choose create with custom settings to provide all configurations manually. Hourly charges apply for both input stream and Kinesis Processing Unit (KPU). [Learn more](#)

Creation method☒ **Quick create with sample code**

This creates the Studio notebook with a basic streaming select query on the streaming data.

☐ **Create with custom settings**

You specify all the settings, which include source, optional destinations, scaling, monitoring, and networking.

☐ **Use a blueprint** [new](#)

Creates and sets up all the resources that you need to get started in a single step using AWS CloudFormation.

General**Studio notebook name**

gameanalysis

Acceptable characters are uppercase and lowercase letters, numbers, underscores, hyphens, and periods.

Description - optional

Enter description

Runtime

Apache Flink 1.15, Apache Zeppelin 0.10

3. Select **gameanalytics** database from drop down for AWS Glue database and click on **Create Studio notebook**.

Permissions [Info](#)

Your role will be given permissions to access AWS Glue database, Amazon CloudWatch, and Amazon VPC.

Service role

Create / update IAM role **kinesis-analytics--us-east-1** with required policies

AWS Glue database

Choose an AWS Glue database that defines the metadata for your sources and destinations.

gameanalytics

View [gameanalytics](#) in AWS Glue

↺

Create [↗](#)

Studio notebook settings

Setting	Value
Logging with Amazon CloudWatch Logs	INFO
Monitoring metrics level with Amazon CloudWatch	Application
Parallelism	4
Parallelism per KPU	1
VPC connectivity	-

Cancel

Create Studio notebook

4. Click on the IAM role and attach **AmazonKinesisFullAccess** policy for the lab. For simplicity, we add full access, but in production, you can add permission specific to your Kinesis data stream.

Managed Apache Flink

Dashboard

Apache Flink applications

Studio notebooks

Resources

What's new

Streaming data solution using Kinesis Data Streams

Streaming data solution using Amazon MSK

Release versions

In-place version upgrade

Customer survey

Step 1

Run your Studio notebook

Once started, hourly charges apply for Kinesis Processing Units (KPU).

Run

Step 2

Analyze using Apache Zeppelin

Once running, you can open your Studio notebook in Apache Zeppelin to write code in SQL, Python, or Scala and test it in real time.

Step 3

Deploy note with durable state

Build and deploy your note from Apache Zeppelin to run as an Analytics application to continuously analyze streaming data with durable state (application snapshots) and automatic scaling. [Learn more](#)

Studio notebook details

Edit IAM permissions

Status	Last updated	Description
Ready	June 26, 2024, 11:26 EDT	-
Runtime	Created time	IAM role
Apache Flink 1.15, Apache Zeppelin 0.10	June 26, 2024, 11:26 EDT	kinesis-analytics-gameanalysis-us-east-1
ARN	AWS Glue database	
arn:aws:kinesisanalytics:us-east-1:234360205714:application/gameanalysis	gameanalytics	

Monitoring

Configuration

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