**IDS 410 – Business Database Technology**

**Fall 2022**

**AWS Lab 5**

**Submitted by:**

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**Task 1: Obtain the AWS Identity and Access Management (IAM) role**

**Select sagemarkerlab from IAM Roles**

**Graphical user interface, text, application, email

Description automatically generated**

**Copy the ARN**

**Graphical user interface, text, application, email

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**Task 2: Create a Jupyter notebook with Amazon SageMaker**

**Select Notebook instance from the Amazon SageMaker service**

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**Create Notebook instance with the below configurations**

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**Task 3: Open your Jupyter notebook instance**

**Select the created notebook and choose the Open Jupyter option.**

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**Choose New, and from the list of environments, select conda\_python3.**

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**Jupyter Notebook running in Python version 3 opens up.**

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**Task 4: Create visualizations with Bokeh**

**Task 4.1: Create a line graph**

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**Save the file**

**Graphical user interface, text, application, email

Description automatically generated**

**Open the lines.html file containing the graph by clinking on the Jupyter icon and selecting the file**

**Graphical user interface, text, application

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**Chart, line chart

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**Task 4.2: Create a bar chart: Use the below code in the** [Create line graph.ipynb](https://mynotebook-as4h.notebook.us-east-1.sagemaker.aws/notebooks/Create%20line%20graph.ipynb) **file.**

**Text

Description automatically generated**

**Chart, bar chart

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**Task 4.3: Create a grouped bar chart: Paste the following code the next line of the python editor**

**Graphical user interface, text, application

Description automatically generated**

**Chart, bar chart

Description automatically generated**

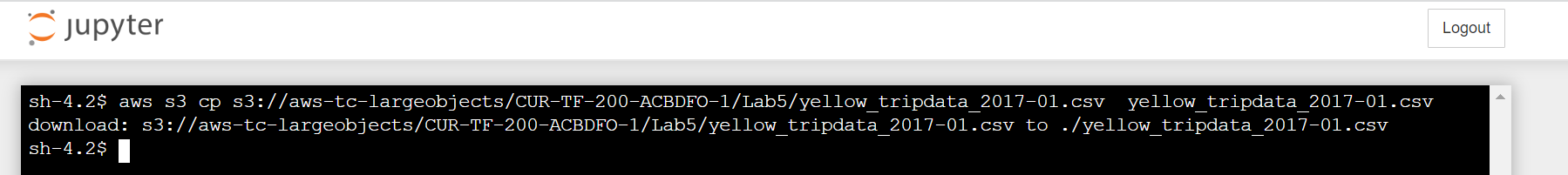
**Task 5: Create a visualization from a dataset**

**Open a new Terminal window from Jupyter**

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**Download the file using given command in the CLI**

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**Task 5.2: Create the notebook: Select conda\_python3 from the new dropdown list**

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**Select Markdown from the content dropdown list**

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Description automatically generated**

**Run the below code in the 1st line of the editor**

**Graphical user interface, text, application

Description automatically generated**

**Enter the following code in the next line of the editor**

**Graphical user interface, text, application

Description automatically generated**

**Save the file**

**Graphical user interface, application

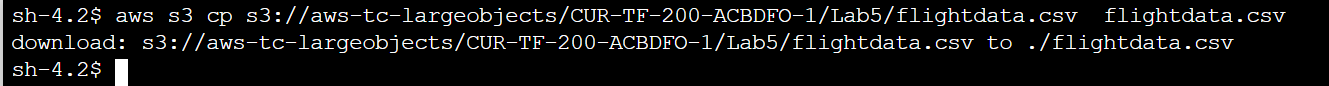
Description automatically generated**

**Chart, scatter chart

Description automatically generated**

**Challenge Question**

**Open Terminal and get the file from AWS S3**

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**Create new Notebook by clinking conda\_python3**

**Graphical user interface, application

Description automatically generated with medium confidence**

**Use the following code to analyze**

**Graphical user interface, text, application, email

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**Chart, scatter chart

Description automatically generated**

**By using the graph made from the data in the given excel sheet we can say that there is a surge in the delay time usually around 1500 hours.**