

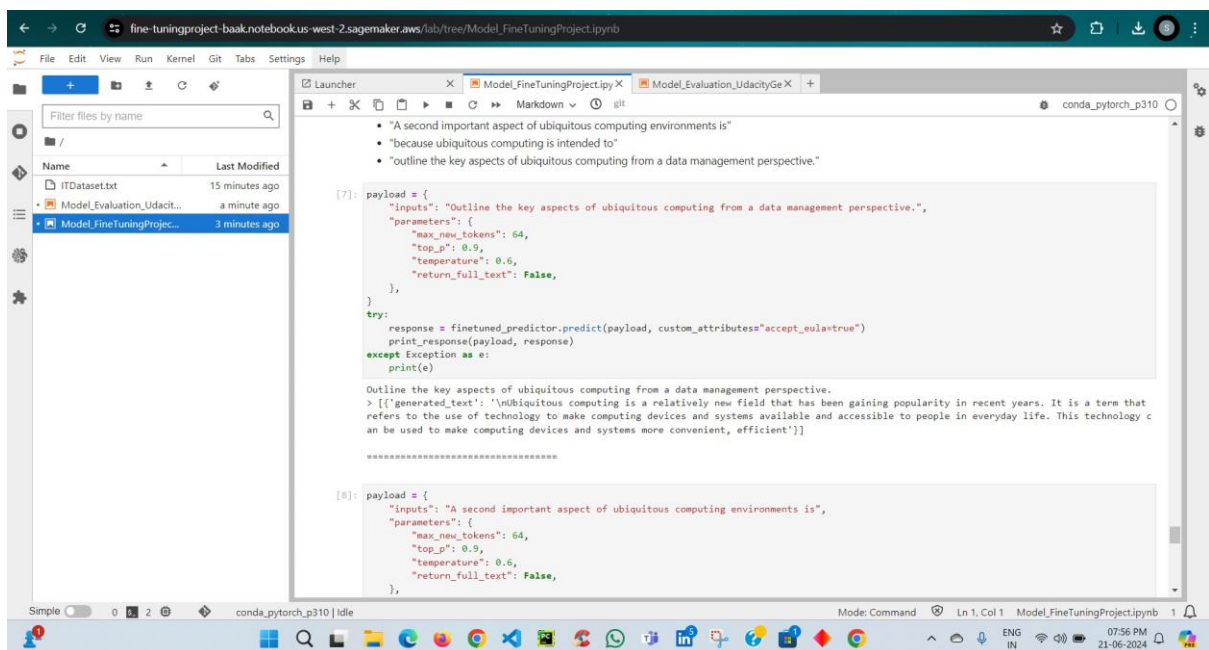
## UDACITY

### Introduction to Generative AI with AWS Project Documentation Report

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Complete the answers to the questions below to complete your project report. Create a PDF of the completed document and submit the PDF with your project.

Screenshot of the Model\_FineTuning.ipynb file with the cell output of the input: “Outline the key aspects of ubiquitous computing from a data management perspective.”



The screenshot shows a Jupyter Notebook interface with a file explorer on the left and a code editor on the right. The file explorer shows a directory with files: ITDataset.txt, Model\_Evaluation\_UdacityGe..., and Model\_FineTuningProject... The code editor shows a cell with a payload and a try-except block. The output of the cell is a list of key aspects of ubiquitous computing from a data management perspective.

```
[7]: payload = {
  "inputs": "Outline the key aspects of ubiquitous computing from a data management perspective.",
  "parameters": {
    "max_new_tokens": 64,
    "top_p": 0.9,
    "temperature": 0.6,
    "return_full_text": False,
  },
}

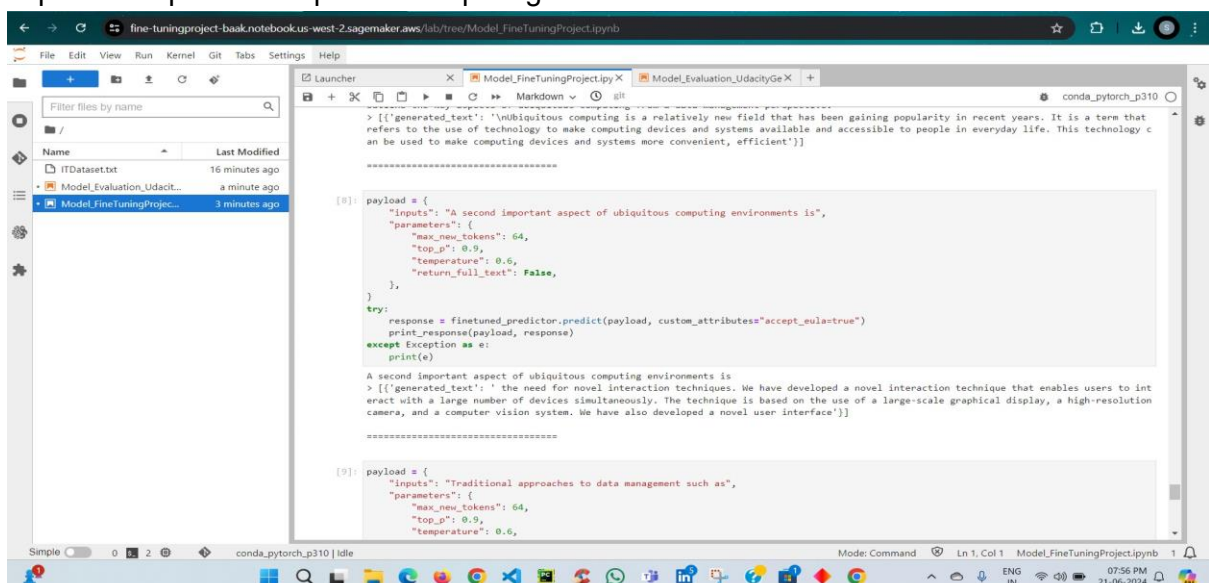
try:
  response = finetuned_predictor.predict(payload, custom_attributes="accept_eula=true")
  print_response(payload, response)
except Exception as e:
  print(e)
```

Outline the key aspects of ubiquitous computing from a data management perspective.

> [[{"generated\_text": "\nUbiquitous computing is a relatively new field that has been gaining popularity in recent years. It is a term that refers to the use of technology to make computing devices and systems available and accessible to people in everyday life. This technology can be used to make computing devices and systems more convenient, efficient"}]]

```
[8]: payload = {
  "inputs": "A second important aspect of ubiquitous computing environments is",
  "parameters": {
    "max_new_tokens": 64,
    "top_p": 0.9,
    "temperature": 0.6,
    "return_full_text": False,
  },
}
```

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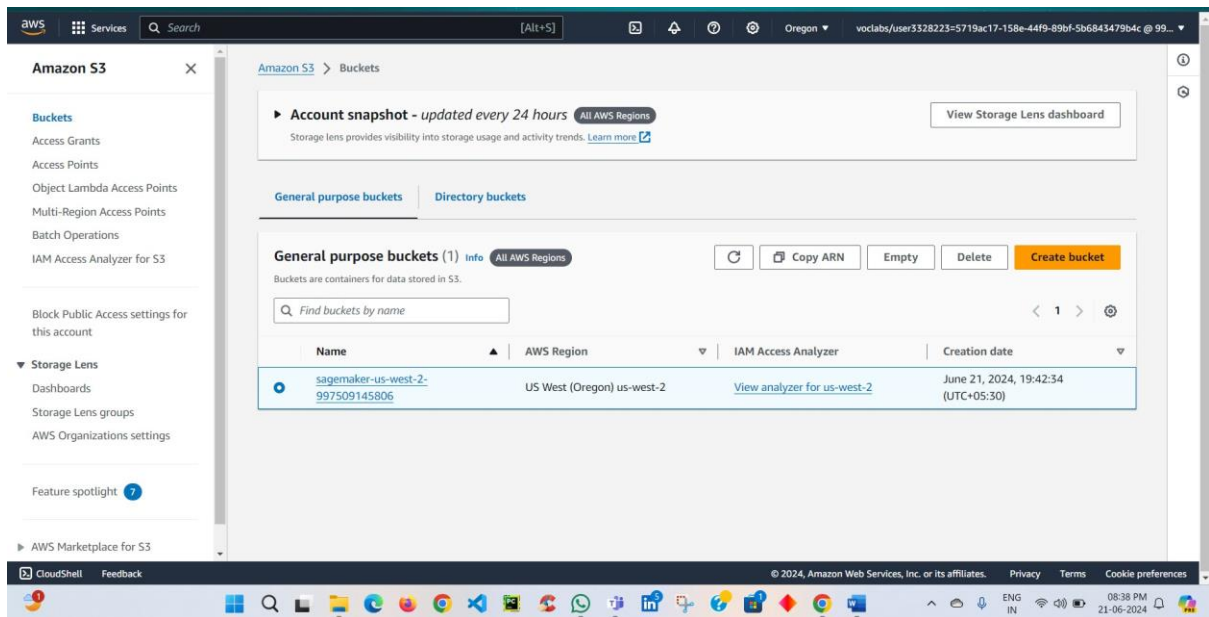
try:
  response = finetuned_predictor.predict(payload, custom_attributes="accept_eula=true")
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A second important aspect of ubiquitous computing environments is

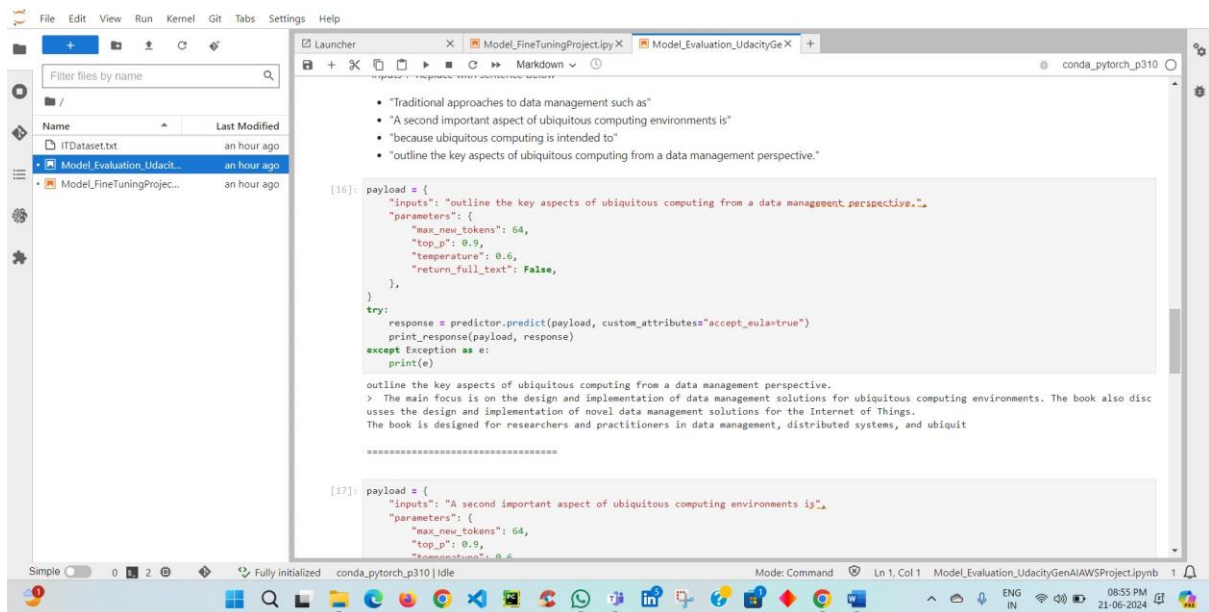
> [[{"generated\_text": " ' the need for novel interaction techniques. We have developed a novel interaction technique that enables users to interact with a large number of devices simultaneously. The technique is based on the use of a large-scale graphical display, a high-resolution camera, and a computer vision system. We have also developed a novel user interface'"}]]

```
[9]: payload = {
  "inputs": "Traditional approaches to data management such as",
  "parameters": {
    "max_new_tokens": 64,
    "top_p": 0.9,
    "temperature": 0.6,
    "return_full_text": False,
  },
}
```

Screenshot of the AWS S3 bucket where the fine-tuned model weights are stored after training.



Screenshot of the Model\_Evaluation\_UdacityGenAIAWS.ipynb file with the cell output of the input: "Outline the key aspects of ubiquitous computing from a data management perspective."



Screenshot of the Model\_Evaluation\_UdacityGenAIAWS.ipynb file with the cell output of the input: "A second important aspect of ubiquitous computing environments is".

```
[17]: payload = {
      "inputs": "A second important aspect of ubiquitous computing environments is_",
      "parameters": {
        "max_new_tokens": 64,
        "top_p": 0.9,
        "temperature": 0.6,
        "return_full_text": False,
      },
    }
    try:
        response = predictor.predict(payload, custom_attributes="accept_eula=true")
        print_response(payload, response)
    except Exception as e:
        print(e)

A second important aspect of ubiquitous computing environments is
> that they provide a platform for the development of new applications and services. In this thesis, we present the design and implementati
on of a set of applications and services that take advantage of the ubiquitous computing environment. We first present a framework for the d
evelopment of applications that can be used to create applications that have a

[18]: payload = {
      "inputs": "Traditional approaches to data management such as",
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        "max_new_tokens": 64,
        "top_p": 0.9,
        "temperature": 0.6,
        "return_full_text": False,
      },
    }
```

Screenshot of the Model\_FineTuning.ipynb file with the cell that delete the model deployment and endpoint runned.

Do the outputs from the fine-tuned model provide domain-specific insightful and relevant content? You can continue experimenting with the inputs of the model to test it's domain knowledge.

**Use the output from this notebook to fill out the "model fine-tuning" section of the project documentation report**

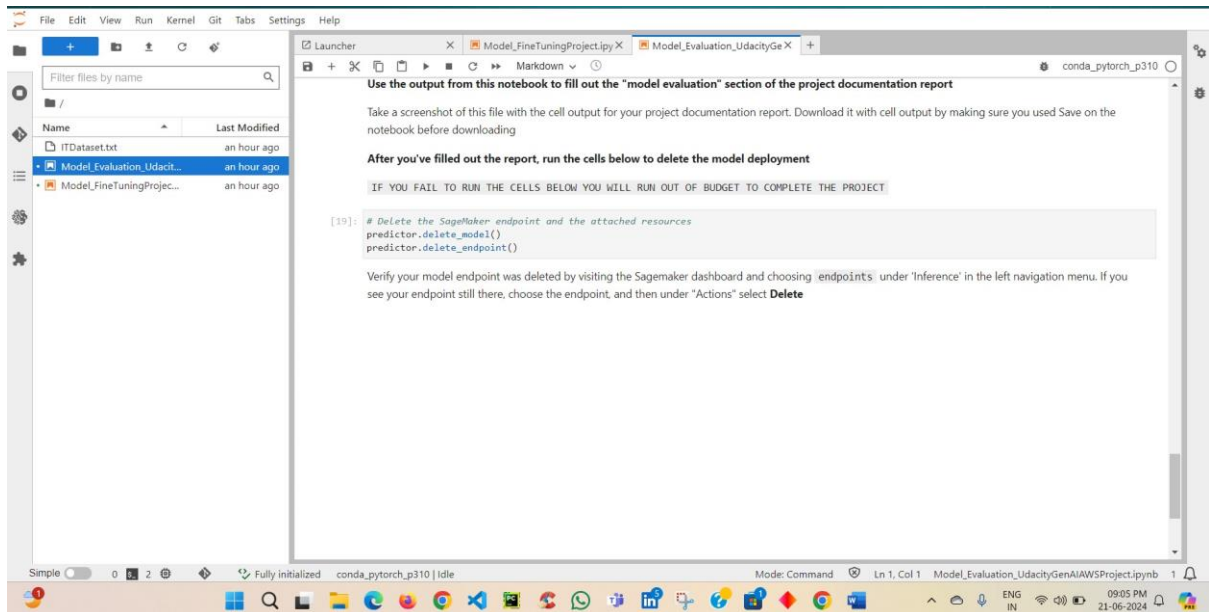
**After you've filled out the report, run the cells below to delete the model deployment**

**IF YOU FAIL TO RUN THE CELLS BELOW YOU WILL RUN OUT OF BUDGET TO COMPLETE THE PROJECT**

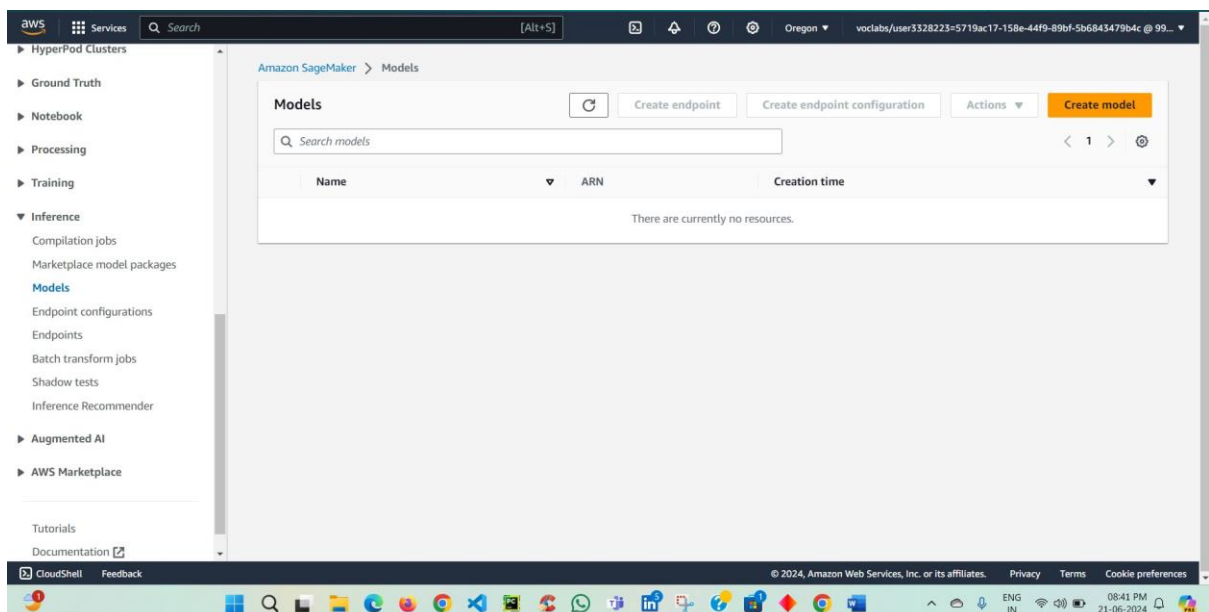
```
[15]: finetuned_predictor.delete_model()
      finetuned_predictor.delete_endpoint()

INFO:sagemaker:Deleting model with name: meta-textgeneration-llama-2-7b-2024-03-31-16-13-19-530
INFO:sagemaker:Deleting endpoint configuration with name: meta-textgeneration-llama-2-7b-2024-03-31-16-13-19-522
INFO:sagemaker:Deleting endpoint with name: meta-textgeneration-llama-2-7b-2024-03-31-16-13-19-522
```

Screenshot of the Model\_Evaluation\_UdacityGenAIAWS.ipynb file with the cell that delete the model deployment and endpoint runned.



Screenshot of verification of the model has been deleted.



Screenshot of verification of the endpoint has been deleted.

