Training - Planning Document

SECUREKLOUD

Day 1

- Python File Operation:

  - Program which gets input from the user and writes it in a file. The program needs to accept input text and file path.

  - Program to read all the files in a folder and append the contents in a single file. The program needs to accept the input path and output path as parameters.

Day 2

- Python Basics:

  - Program to read a CSV file, convert it to JSON, and save it in another file.

  - Program to demonstrate the logging functionality.

Day 3

- Python Pandas Framework:

  - Read and merge 2 CSV files and write them in a single file. For example, the first CSV can have employee details, and the second one can have their number of experiences (one-to-one relationship).

  - Program to read 2 CSV files, merge them, and aggregate the results using the Pandas Framework. For example, one CSV can have all employees' details, and another CSV can have monthly performance for each employee. The final result will be the employee and their average performance.

Day 4

- Python Pandas Framework (Continued):

  - Demonstrate aggregation functions (Count, Sum, Group by, Distinct, Filter Column & Rows, Checks like NULL, number range, string column with regex, e.g., email ID, SSN, State list).

- Python Advanced:

  - Comprehension List, Aggregation using Lambda.

  - Read a CSV file that has employee details, convert it to an Object (have a class for an employee), and keep the object in a list.

  - Program to read data from a CSV and convert it to a dictionary, then print the details on the console. The input content will be in a file, and the employee ID will be the key, while the employee details will be the value in the dictionary.

Day 5

- Python REST:

  - Call any one of the open APIs from https://any-api.com and write the output in a CSV file.

Day 6

- Python File Handling:

  - Write a script to perform merge, split, crop with custom dimensions, tilt a page with custom angle, conversion of PDF into JPEG and vice versa.

- How to Write Beautiful Python Code:

  - Coding standards & tests (PEP-8 Tutorial).

Day 7

- Python Metrics:

  - Demonstrate Precision, Recall, F1 Score, BLEU Score, AUC/ROC, PRC, Character/Word/LA error rate.

Day 8

- Python Metrics (Continued):

  - Continue demonstrating various metrics.

Day 9

- Python Encoding and Decoding:

  - Learn about all Unicode & character encoding and decoding mechanisms and implement them in a script without losing any data while handling a file.

  - Try UTF-8, UTF-16, UTF-32, UTF-8 BOM encoding.

  - Take at least one or two pages of Japanese, Spanish, Italian, Russian, French, Chinese, etc., read the files, write them in other files, and check if the text is coming out correctly.

Day 10

- Data Analysis:
  - MS-Excel:
    - Formatting & basic formulas
    - Mouse-free Excel navigation
    - Vlookups & conditional statements
    - Data analysis functions - filtering, sorting, and analyzing data
    - Data visualization - tables, charts, and dual axis charts
    - What-if analysis
    - Pivot tables

Day 11

- GCP Basics:
  - Access storage (Get/Put/List) through a service account.

Day 12

- GCP Basics (Continued):
  -

Continue learning about GCP basics.

Day 13

- GCP Basics (Continued):
  - Create and access Compute Instance.

Day 14

- GCP AI/ML:
  - Find the sentiment of the given text using Natural Language AI using the Python Library.

Day 15

- GCP AI/ML (Continued):

  - Detect images in text using Vision API OCR feature using the Python Library. Pass an image and show the filtered result in the console.

This training plan covers various aspects of Python programming, file operations, data analysis, GCP basics, and AI/ML. It provides a structured approach to learning and gradually builds on the skills and knowledge.

console. The input content will be in a file, and the employee ID will be the key, while the employee details will be the value in the dictionary.

Training - Planning Document

SECUREKLOUD

Day 1

- Python File Operation:

  - Program which gets input from the user and writes it in a file. The program needs to accept input text and file path.

  - Program to read all the files in a folder and append the contents in a single file. The program needs to accept the input path and output path as parameters.

Day 2

- Python Basics:

  - Program to read a CSV file, convert it to JSON, and save it in another file.

  - Program to demonstrate the logging functionality.

Day 3

- Python Pandas Framework:

  - Read and merge 2 CSV files and write them in a single file. For example, the first CSV can have employee details, and the second one can have their number of experiences (one-to-one relationship).

  - Program to read 2 CSV files, merge them, and aggregate the results using the Pandas Framework. For example, one CSV can have all employees' details, and another CSV can have monthly performance for each employee. The final result will be the employee and their average performance.

Day 4

- Python Pandas Framework (Continued):

  - Demonstrate aggregation functions (Count, Sum, Group by, Distinct, Filter Column & Rows, Checks like NULL, number range, string column with regex, e.g., email ID, SSN, State list).

- Python Advanced:

  - Comprehension List, Aggregation using Lambda.

  - Read a CSV file that has employee details, convert it to an Object (have a class for an employee), and keep the object in a list.

  - Program to read data from a CSV and convert it to a dictionary, then print the details on the console. The input content will be in a file, and the employee ID will be the key, while the employee details will be the value in the dictionary.

Day 5

- Python REST:

  - Call any one of the open APIs from https://any-api.com and write the output in a CSV file.

Day 6

- Python File Handling:

  - Write a script to perform merge, split, crop with custom dimensions, tilt a page with custom angle, conversion of PDF into JPEG and vice versa.

- How to Write Beautiful Python Code:

  - Coding standards & tests (PEP-8 Tutorial).

Day 7

- Python Metrics:

  - Demonstrate Precision, Recall, F1 Score, BLEU Score, AUC/ROC, PRC, Character/Word/LA error rate.

Day 8

- Python Metrics (Continued):

  - Continue demonstrating various metrics.

Day 9

- Python Encoding and Decoding:

  - Learn about all Unicode & character encoding and decoding mechanisms and implement them in a script without losing any data while handling a file.

  - Try UTF-8, UTF-16, UTF-32, UTF-8 BOM encoding.

  - Take at least one or two pages of Japanese, Spanish, Italian, Russian, French, Chinese, etc., read the files, write them in other files, and check if the text is coming out correctly.

Day 10

- Data Analysis:
  - MS-Excel:
    - Formatting & basic formulas
    - Mouse-free Excel navigation
    - Vlookups & conditional statements
    - Data analysis functions - filtering, sorting, and analyzing data
    - Data visualization - tables, charts, and dual axis charts
    - What-if analysis
    - Pivot tables

Day 11

- GCP Basics:
  - Access storage (Get/Put/List) through a service account.

Day 12

- GCP Basics (Continued):
  -

Continue learning about GCP basics.

Day 13

- GCP Basics (Continued):
  - Create and access Compute Instance.

Day 14

- GCP AI/ML:
  - Find the sentiment of the given text using Natural Language AI using the Python Library.

Day 15

- GCP AI/ML (Continued):

  - Detect images in text using Vision API OCR feature using the Python Library. Pass an image and show the filtered result in the console.

This training plan covers various aspects of Python programming, file operations, data analysis, GCP basics, and AI/ML. It provides a structured approach to learning and gradually builds on the skills and knowledge.

console. The input content will be in a file, and the employee ID will be the key, while the employee details will be the value in the dictionary.

Training - Planning Document

SECUREKLOUD

Day 1

- Python File Operation:

  - Program which gets input from the user and writes it in a file. The program needs to accept input text and file path.

  - Program to read all the files in a folder and append the contents in a single file. The program needs to accept the input path and output path as parameters.

Day 2

- Python Basics:

  - Program to read a CSV file, convert it to JSON, and save it in another file.

  - Program to demonstrate the logging functionality.

Day 3

- Python Pandas Framework:

  - Read and merge 2 CSV files and write them in a single file. For example, the first CSV can have employee details, and the second one can have their number of experiences (one-to-one relationship).

  - Program to read 2 CSV files, merge them, and aggregate the results using the Pandas Framework. For example, one CSV can have all employees' details, and another CSV can have monthly performance for each employee. The final result will be the employee and their average performance.

Day 4

- Python Pandas Framework (Continued):

  - Demonstrate aggregation functions (Count, Sum, Group by, Distinct, Filter Column & Rows, Checks like NULL, number range, string column with regex, e.g., email ID, SSN, State list).

- Python Advanced:

  - Comprehension List, Aggregation using Lambda.

  - Read a CSV file that has employee details, convert it to an Object (have a class for an employee), and keep the object in a list.

  - Program to read data from a CSV and convert it to a dictionary, then print the details on the console. The input content will be in a file, and the employee ID will be the key, while the employee details will be the value in the dictionary.

Day 5

- Python REST:

  - Call any one of the open APIs from https://any-api.com and write the output in a CSV file.

Day 6

- Python File Handling:

  - Write a script to perform merge, split, crop with custom dimensions, tilt a page with custom angle, conversion of PDF into JPEG and vice versa.

- How to Write Beautiful Python Code:

  - Coding standards & tests (PEP-8 Tutorial).

Day 7

- Python Metrics:

  - Demonstrate Precision, Recall, F1 Score, BLEU Score, AUC/ROC, PRC, Character/Word/LA error rate.

Day 8

- Python Metrics (Continued):

  - Continue demonstrating various metrics.

Day 9

- Python Encoding and Decoding:

  - Learn about all Unicode & character encoding and decoding mechanisms and implement them in a script without losing any data while handling a file.

  - Try UTF-8, UTF-16, UTF-32, UTF-8 BOM encoding.

  - Take at least one or two pages of Japanese, Spanish, Italian, Russian, French, Chinese, etc., read the files, write them in other files, and check if the text is coming out correctly.

Day 10

- Data Analysis:
  - MS-Excel:
    - Formatting & basic formulas
    - Mouse-free Excel navigation
    - Vlookups & conditional statements
    - Data analysis functions - filtering, sorting, and analyzing data
    - Data visualization - tables, charts, and dual axis charts
    - What-if analysis
    - Pivot tables

Day 11

- GCP Basics:
  - Access storage (Get/Put/List) through a service account.

Day 12

- GCP Basics (Continued):
  -

Continue learning about GCP basics.

Day 13

- GCP Basics (Continued):
  - Create and access Compute Instance.

Day 14

- GCP AI/ML:
  - Find the sentiment of the given text using Natural Language AI using the Python Library.

Day 15

- GCP AI/ML (Continued):

  - Detect images in text using Vision API OCR feature using the Python Library. Pass an image and show the filtered result in the console.

This training plan covers various aspects of Python programming, file operations, data analysis, GCP basics, and AI/ML. It provides a structured approach to learning and gradually builds on the skills and knowledge.

console. The input content will be in a file, and the employee ID will be the key, while the employee details will be the value in the dictionary.

Training - Planning Document

SECUREKLOUD

Day 1

- Python File Operation:

  - Program which gets input from the user and writes it in a file. The program needs to accept input text and file path.

  - Program to read all the files in a folder and append the contents in a single file. The program needs to accept the input path and output path as parameters.

Day 2

- Python Basics:

  - Program to read a CSV file, convert it to JSON, and save it in another file.

  - Program to demonstrate the logging functionality.

Day 3

- Python Pandas Framework:

  - Read and merge 2 CSV files and write them in a single file. For example, the first CSV can have employee details, and the second one can have their number of experiences (one-to-one relationship).

  - Program to read 2 CSV files, merge them, and aggregate the results using the Pandas Framework. For example, one CSV can have all employees' details, and another CSV can have monthly performance for each employee. The final result will be the employee and their average performance.

Day 4

- Python Pandas Framework (Continued):

  - Demonstrate aggregation functions (Count, Sum, Group by, Distinct, Filter Column & Rows, Checks like NULL, number range, string column with regex, e.g., email ID, SSN, State list).

- Python Advanced:

  - Comprehension List, Aggregation using Lambda.

  - Read a CSV file that has employee details, convert it to an Object (have a class for an employee), and keep the object in a list.

  - Program to read data from a CSV and convert it to a dictionary, then print the details on the console. The input content will be in a file, and the employee ID will be the key, while the employee details will be the value in the dictionary.

Day 5

- Python REST:

  - Call any one of the open APIs from https://any-api.com and write the output in a CSV file.

Day 6

- Python File Handling:

  - Write a script to perform merge, split, crop with custom dimensions, tilt a page with custom angle, conversion of PDF into JPEG and vice versa.

- How to Write Beautiful Python Code:

  - Coding standards & tests (PEP-8 Tutorial).

Day 7

- Python Metrics:

  - Demonstrate Precision, Recall, F1 Score, BLEU Score, AUC/ROC, PRC, Character/Word/LA error rate.

Day 8

- Python Metrics (Continued):

  - Continue demonstrating various metrics.

Day 9

- Python Encoding and Decoding:

  - Learn about all Unicode & character encoding and decoding mechanisms and implement them in a script without losing any data while handling a file.

  - Try UTF-8, UTF-16, UTF-32, UTF-8 BOM encoding.

  - Take at least one or two pages of Japanese, Spanish, Italian, Russian, French, Chinese, etc., read the files, write them in other files, and check if the text is coming out correctly.

Day 10

- Data Analysis:
  - MS-Excel:
    - Formatting & basic formulas
    - Mouse-free Excel navigation
    - Vlookups & conditional statements
    - Data analysis functions - filtering, sorting, and analyzing data
    - Data visualization - tables, charts, and dual axis charts
    - What-if analysis
    - Pivot tables

Day 11

- GCP Basics:
  - Access storage (Get/Put/List) through a service account.

Day 12

- GCP Basics (Continued):
  -

Continue learning about GCP basics.

Day 13

- GCP Basics (Continued):
  - Create and access Compute Instance.

Day 14

- GCP AI/ML:
  - Find the sentiment of the given text using Natural Language AI using the Python Library.

Day 15

- GCP AI/ML (Continued):

  - Detect images in text using Vision API OCR feature using the Python Library. Pass an image and show the filtered result in the console.

This training plan covers various aspects of Python programming, file operations, data analysis, GCP basics, and AI/ML. It provides a structured approach to learning and gradually builds on the skills and knowledge.

Training - Planning Document

SECUREKLOUD

Day 1

- Python File Operation:

  - Program which gets input from the user and writes it in a file. The program needs to accept input text and file path.

  - Program to read all the files in a folder and append the contents in a single file. The program needs to accept the input path and output path as parameters.

Day 2

- Python Basics:

  - Program to read a CSV file, convert it to JSON, and save it in another file.

  - Program to demonstrate the logging functionality.

Day 3

- Python Pandas Framework:

  - Read and merge 2 CSV files and write them in a single file. For example, the first CSV can have employee details, and the second one can have their number of experiences (one-to-one relationship).

  - Program to read 2 CSV files, merge them, and aggregate the results using the Pandas Framework. For example, one CSV can have all employees' details, and another CSV can have monthly performance for each employee. The final result will be the employee and their average performance.

Day 4

- Python Pandas Framework (Continued):

  - Demonstrate aggregation functions (Count, Sum, Group by, Distinct, Filter Column & Rows, Checks like NULL, number range, string column with regex, e.g., email ID, SSN, State list).

- Python Advanced:

  - Comprehension List, Aggregation using Lambda.

  - Read a CSV file that has employee details, convert it to an Object (have a class for an employee), and keep the object in a list.

  - Program to read data from a CSV and convert it to a dictionary, then print the details on the console. The input content will be in a file, and the employee ID will be the key, while the employee details will be the value in the dictionary.

Day 5

- Python REST:

  - Call any one of the open APIs from https://any-api.com and write the output in a CSV file.

Day 6

- Python File Handling:

  - Write a script to perform merge, split, crop with custom dimensions, tilt a page with custom angle, conversion of PDF into JPEG and vice versa.

- How to Write Beautiful Python Code:

  - Coding standards & tests (PEP-8 Tutorial).

Day 7

- Python Metrics:

  - Demonstrate Precision, Recall, F1 Score, BLEU Score, AUC/ROC, PRC, Character/Word/LA error rate.

Day 8

- Python Metrics (Continued):

  - Continue demonstrating various metrics.

Day 9

- Python Encoding and Decoding:

  - Learn about all Unicode & character encoding and decoding mechanisms and implement them in a script without losing any data while handling a file.

  - Try UTF-8, UTF-16, UTF-32, UTF-8 BOM encoding.

  - Take at least one or two pages of Japanese, Spanish, Italian, Russian, French, Chinese, etc., read the files, write them in other files, and check if the text is coming out correctly.

Day 10

- Data Analysis:
  - MS-Excel:
    - Formatting & basic formulas
    - Mouse-free Excel navigation
    - Vlookups & conditional statements
    - Data analysis functions - filtering, sorting, and analyzing data
    - Data visualization - tables, charts, and dual axis charts
    - What-if analysis
    - Pivot tables

Day 11

- GCP Basics:
  - Access storage (Get/Put/List) through a service account.

Day 12

- GCP Basics (Continued):
  -

Continue learning about GCP basics.

Day 13

- GCP Basics (Continued):
  - Create and access Compute Instance.

Day 14

- GCP AI/ML:
  - Find the sentiment of the given text using Natural Language AI using the Python Library.

Day 15

- GCP AI/ML (Continued):

  - Detect images in text using Vision API OCR feature using the Python Library. Pass an image and show the filtered result in the console.

This training plan covers various aspects of Python programming, file operations, data analysis, GCP basics, and AI/ML. It provides a structured approach to learning and gradually builds on the skills and knowledge.

Day 5

- Python REST:

  - Call any one of the open APIs from https://any-api.com and write the output in a CSV file.

Day 6

- Python File Handling:

  - Write a script to perform merge, split, crop with custom dimensions, tilt a page with custom angle, conversion of PDF into JPEG and vice versa.

- How to Write Beautiful Python Code:

  - Coding standards & tests (PEP-8 Tutorial).

Day 7

- Python Metrics:

  - Demonstrate Precision, Recall, F1 Score, BLEU Score, AUC/ROC, PRC, Character/Word/LA error rate.

Day 8

- Python Metrics (Continued):

  - Continue demonstrating various metrics.

Day 9

- Python Encoding and Decoding:

  - Learn about all Unicode & character encoding and decoding mechanisms and implement them in a script without losing any data while handling a file.

  - Try UTF-8, UTF-16, UTF-32, UTF-8 BOM encoding.

  - Take at least one or two pages of Japanese, Spanish, Italian, Russian, French, Chinese, etc., read the files, write them in other files, and check if the text is coming out correctly.

Day 5

- Python REST:

  - Call any one of the open APIs from https://any-api.com and write the output in a CSV file.

Day 6

- Python File Handling:

  - Write a script to perform merge, split, crop with custom dimensions, tilt a page with custom angle, conversion of PDF into JPEG and vice versa.

- How to Write Beautiful Python Code:

  - Coding standards & tests (PEP-8 Tutorial).

Day 7

- Python Metrics:

  - Demonstrate Precision, Recall, F1 Score, BLEU Score, AUC/ROC, PRC, Character/Word/LA error rate.

Day 8

- Python Metrics (Continued):

  - Continue demonstrating various metrics.

Day 9

- Python Encoding and Decoding:

  - Learn about all Unicode & character encoding and decoding mechanisms and implement them in a script without losing any data while handling a file.

  - Try UTF-8, UTF-16, UTF-32, UTF-8 BOM encoding.

  - Take at least one or two pages of Japanese, Spanish, Italian, Russian, French, Chinese, etc., read the files, write them in other files, and check if the text is coming out correctly.