* Design the Solution
* Create table in Database using Python
* Read CSV Data from files
* Data Type Conversion of non string columns
* Populate Data into Table
* Validate Data in the Table
* Limitations of the Approach
* Overview of Metadata Driven or Dynamic Programming
* Exercise and Solution

1. What is the first step in loading CSV data from files to a database table in Python?

a) Create a table in the database using Python

b) Read CSV data from files

c) Data type conversion of non-string columns

d) Populate data into table

Answer: a) Create a table in the database using Python

1. Which Python module can be used to interact with a database?

a) sqlite3

b) pandas

c) numpy

d) matplotlib

Answer: a) sqlite3

1. What is the purpose of data type conversion in loading CSV data to a database table?

a) To convert all data to strings

b) To ensure the data is compatible with the database table

c) To remove any non-string data

d) To make the data easier to read

Answer: b) To ensure the data is compatible with the database table

1. Which of the following is NOT a step in loading CSV data to a database table?

a) Validate data in the table

b) Limitations of the approach

c) Populate data into table

d) Read CSV data from files

Answer: b) Limitations of the approach

1. Which Python module can be used to read a CSV file?

a) pandas

b) sqlite3

c) numpy

d) matplotlib

Answer: a) pandas

1. What is the purpose of creating a table in a database before loading CSV data?

a) To ensure data compatibility

b) To create a backup of the CSV data

c) To visualize the data

d) To perform data type conversion

Answer: a) To ensure data compatibility

1. Which of the following is NOT a method for validating data in a database table?

a) Checking for null values

b) Checking for duplicates

c) Checking for incorrect data types

d) Checking for missing columns

Answer: d) Checking for missing columns

1. What is a limitation of loading CSV data to a database table in Python?

a) It can be slow for large datasets

b) It requires advanced Python knowledge

c) It is not compatible with all databases

d) It can only handle string data

Answer: a) It can be slow for large datasets

1. What is metadata-driven programming?

a) A programming paradigm focused on data structures

b) A programming technique that uses machine learning algorithms

c) A programming approach that uses data to determine program behavior

d) A programming technique that focuses on code reusability

Answer: c) A programming approach that uses data to determine program behavior

1. What is dynamic programming?

a) A programming approach that allows for code to be compiled at runtime

b) A programming technique that uses recursion to solve problems

c) A programming paradigm focused on data structures

d) A programming approach that uses memoization to optimize algorithms

Answer: d) A programming approach that uses memoization to optimize algorithms