Topic 68 - CSV Files: Reading Them

**What**

* When reading a CSV file in Python, the contents of the file are read as an iterable object, which needs to be processed line by line to access the data in a usable format.
* In this example, the CSV file contains a list of competitions, and we are reading it using the csv.reader() function.

**Why**

* The csv.reader() function reads each row of the CSV file as a list of values (one per column in that row). However, to make this data useful, you often need to loop through each line and collect it in a structure like a list.

**How**

1. **Opening the CSV File**  
   First, open the CSV file using the with open() statement, which automatically closes the file after reading:

python

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with open("competitions.csv") as f:

1. **Reading the File with csv.reader()**  
   Next, use csv.reader() to read the contents of the file and assign it to a variable:

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contents\_of\_f = csv.reader(f)

1. **Creating a List to Store Data**  
   You need to create a list where the CSV data will be stored:

python

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potter\_competitions = []

1. **Looping Through the CSV Data**  
   Use a for loop to iterate through each line of the CSV file and append each line to the list:

python

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for each\_line in contents\_of\_f:

potter\_competitions += each\_line

This process adds each row (as a list) from the CSV file to the potter\_competitions list.

1. **Displaying the Final List**  
   After the loop ends, the potter\_competitions list will contain all the rows of the CSV file:

python

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print(potter\_competitions)

**Output:**

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['Year', 'Event', 'Winner', '1995', 'Best-Kept Lawn', 'None', '1999', 'Gobstones', 'Welch National', '2006', 'World Cup', 'Burkina Faso']

**Things to Remember**

* **Looping through CSV data**: The csv.reader() function provides an iterable, but you need a loop to process the data line by line.
* **Data Collection**: Each line of the CSV file is a list, and appending each line to a list like potter\_competitions allows you to store all the data from the file in a single list.