
```
1 import csv
2
3 # Open CSV file
4 with open("CS50 2019 - Lecture 7 - Favorite TV Shows (Responses) - Form Responses 1.csv", "r") as file:
5
6     # Create DictReader
7     reader = csv.DictReader(file)
8
9     # Iterate over CSV file, printing each title
10    for row in reader:
11        print(row["title"])
```

```
1 import csv
2
3 # For counting favorites
4 counts = {}
5
6 # Open CSV file
7 with open("CS50 2019 - Lecture 7 - Favorite TV Shows (Responses) - Form Responses 1.csv", "r") as file:
8
9     # Create DictReader
10    reader = csv.DictReader(file)
11
12    # Iterate over CSV file
13    for row in reader:
14
15        # Force title to lowercase
16        title = row["title"].lower()
17
18        # Add title to counts
19        if title in counts:
20            counts[title] += 1
21        else:
22            counts[title] = 1
23
24    # Print counts
25    for title, count in counts.items():
26        print(title, count, sep=" | ")
```

```
1 import csv
2
3 # For counting favorites
4 counts = {}
5
6 # Open CSV file
7 with open("CS50 2019 - Lecture 7 - Favorite TV Shows (Responses) - Form Responses 1.csv", "r") as file:
8
9     # Create DictReader
10    reader = csv.DictReader(file)
11
12    # Iterate over CSV file
13    for row in reader:
14
15        # Force title to lowercase
16        title = row["title"].lower()
17
18        # Add title to counts
19        if title in counts:
20            counts[title] += 1
21        else:
22            counts[title] = 1
23
24    # Print counts, sorted by title
25    for title, count in sorted(counts.items()):
26        print(title, count, sep=" | ")
```

```
1 import csv
2
3 # For counting favorites
4 counts = {}
5
6 # Open CSV file
7 with open("CS50 2019 - Lecture 7 - Favorite TV Shows (Responses) - Form Responses 1.csv", "r") as file:
8
9     # Create DictReader
10    reader = csv.DictReader(file)
11
12    # Iterate over CSV file
13    for row in reader:
14
15        # Force title to lowercase
16        title = row["title"].lower()
17
18        # Add title to counts
19        if title in counts:
20            counts[title] += 1
21        else:
22            counts[title] = 1
23
24    # Function for comparing items by value
25    def f(item):
26        return item[1]
27
28    # Print counts, sorted by key
29    for title, count in sorted(counts.items(), key=f, reverse=True):
30        print(title, count, sep=" | ")
```

```
1 import csv
2
3 # For counting favorites
4 counts = {}
5
6 # Open CSV file
7 with open("CS50 2019 - Lecture 7 - Favorite TV Shows (Responses) - Form Responses 1.csv", "r") as file:
8
9     # Create DictReader
10    reader = csv.DictReader(file)
11
12    # Iterate over CSV file
13    for row in reader:
14
15        # Force title to lowercase
16        title = row["title"].lower()
17
18        # Add title to counts
19        if title in counts:
20            counts[title] += 1
21        else:
22            counts[title] = 1
23
24    # Print counts, sorted by key
25    for title, count in sorted(counts.items(), key=lambda item: item[1], reverse=True):
26        print(title, count, sep=" | ")
```

```
1 import csv
2
3 # Open TSV file
4 # https://datasets.imdbws.com/title.basics.tsv.gz
5 with open("title.basics.tsv", "r") as titles:
6
7     # Create DictReader
8     reader = csv.DictReader(titles, delimiter="\t")
9
10    # Open CSV file
11    with open("shows0.csv", "w") as shows:
12
13        # Create writer
14        writer = csv.writer(shows)
15
16        # Write header
17        writer.writerow(["tconst", "primaryTitle", "startYear", "genres"])
18
19        # Iterate over TSV file
20        for row in reader:
21
22            # If non-adult TV show
23            if row["titleType"] == "tvSeries" and row["isAdult"] == "0":
24
25                # Write row
26                writer.writerow([row["tconst"], row["primaryTitle"], row["startYear"], row["genres"]])
```

```
1 import csv
2
3 # Open TSV file
4 # https://datasets.imdbws.com/title.basics.tsv.gz
5 with open("title.basics.tsv", "r") as titles:
6
7     # Create DictReader
8     reader = csv.DictReader(titles, delimiter="\t")
9
10    # Open CSV file
11    with open("shows1.csv", "w") as shows:
12
13        # Create writer
14        writer = csv.writer(shows)
15
16        # Write header
17        writer.writerow(["tconst", "primaryTitle", "startYear", "genres"])
18
19        # Iterate over TSV file
20        for row in reader:
21
22            # If non-adult TV show
23            if row["titleType"] == "tvSeries" and row["isAdult"] == "0":
24
25                # If year not missing
26                if row["startYear"] != "\\N":
27
28                    # If since 1970
29                    if int(row["startYear"]) >= 1970:
30
31                        # Write row
32                        writer.writerow([row["tconst"], row["primaryTitle"], row["startYear"], row["genres"]])
```

```
1 import csv
2
3 # Open TSV file
4 # https://datasets.imdbws.com/title.basics.tsv.gz
5 with open("title.basics.tsv", "r") as titles:
6
7     # Create DictReader
8     reader = csv.DictReader(titles, delimiter="\t")
9
10    # Open CSV file
11    with open("shows2.csv", "w") as shows:
12
13        # Create writer
14        writer = csv.writer(shows)
15
16        # Write header
17        writer.writerow(["tconst", "primaryTitle", "startYear", "genres"])
18
19        # Iterate over TSV file
20        for row in reader:
21
22            # If non-adult TV show
23            if row["titleType"] == "tvSeries" and row["isAdult"] == "0":
24
25                # If year not missing
26                if row["startYear"] != "\\N":
27
28                    # Remove \N from genres
29                    genres = row["genres"] if row["genres"] != "\\N" else None
30
31                    # If since 1970
32                    if int(row["startYear"]) >= 1970:
33
34                        # Write row
35                        writer.writerow([row["tconst"], row["primaryTitle"], row["startYear"], genres])
```



```
1 import cs50
2 import csv
3
4 # Create database
5 open("shows3.db", "w").close()
6 db = cs50.SQL("sqlite:///shows3.db")
7
8 # Create table
9 db.execute("CREATE TABLE shows (tconst TEXT, primaryTitle TEXT, startYear NUMERIC, genres TEXT)")
10
11 # Open TSV file
12 # https://datasets.imdbws.com/title.basics.tsv.gz
13 with open("title.basics.tsv", "r") as titles:
14
15     # Create DictReader
16     reader = csv.DictReader(titles, delimiter="\t")
17
18     # Iterate over TSV file
19     for row in reader:
20
21         # If non-adult TV show
22         if row["titleType"] == "tvSeries" and row["isAdult"] == "0":
23
24             # If year not missing
25             if row["startYear"] != "\\N":
26
27                 # If since 1970
28                 startYear = int(row["startYear"])
29                 if startYear >= 1970:
30
31                     # Remove \N from genres
32                     genres = row["genres"] if row["genres"] != "\\N" else None
33
34                     # Insert show
35                     db.execute("INSERT INTO shows (tconst, primaryTitle, startYear, genres) VALUES(?, ?, ?, ?)",
36                               row["tconst"], row["primaryTitle"], startYear, genres)
```

```
1 import cs50
2 import csv
3
4 # Create database
5 open("shows4.db", "w").close()
6 db = cs50.SQL("sqlite:///shows4.db")
7
8 # Create tables
9 db.execute("CREATE TABLE shows (id INT, title TEXT, year NUMERIC, PRIMARY KEY(id))")
10 db.execute("CREATE TABLE genres (show_id INT, genre TEXT, FOREIGN KEY(show_id) REFERENCES shows(id))")
11
12 # Open TSV file
13 # https://datasets.imdbws.com/title.basics.tsv.gz
14 with open("title.basics.tsv", "r") as titles:
15
16     # Create DictReader
17     reader = csv.DictReader(titles, delimiter="\t")
18
19     # Iterate over TSV file
20     for row in reader:
21
22         # If non-adult TV show
23         if row["titleType"] == "tvSeries" and row["isAdult"] == "0":
24
25             # If year not missing
26             if row["startYear"] != "\\N":
27
28                 # If since 1970
29                 startYear = int(row["startYear"])
30                 if startYear >= 1970:
31
32                     # Trim prefix from tconst
33                     id = int(row["tconst"][2:])
34
35                     # Insert show
36                     db.execute("INSERT INTO shows (id, title, year) VALUES(?, ?, ?)", id, row["primaryTitle"], sta
rtYear)
37
38                     # Insert genres
39                     if row["genres"] != "\\N":
40                         for genre in row["genres"].split(","):
41                             db.execute("INSERT INTO genres (show_id, genre) VALUES(?, ?)", id, genre)
```

```
1 import csv
2
3 # Prompt user for title
4 title = input("Title: ")
5
6 # Open CSV file
7 with open("shows2.csv", "r") as input:
8
9     # Create DictReader
10    reader = csv.DictReader(input)
11
12    # Iterate over CSV file
13    for row in reader:
14
15        # Search for title
16        if title.lower() == row["primaryTitle"].lower():
17            print(row["primaryTitle"], row["startYear"], row["genres"], sep=" | ")
```