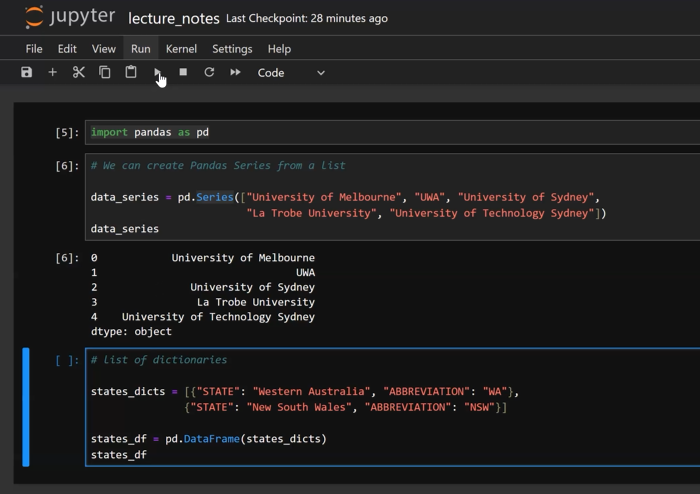
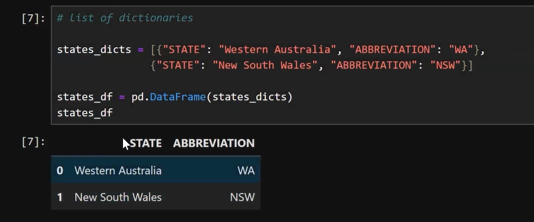
# Module 4 – Pandas

**Panda / Jupyter**

**Method 1**



**Method 2 (mostly used)**

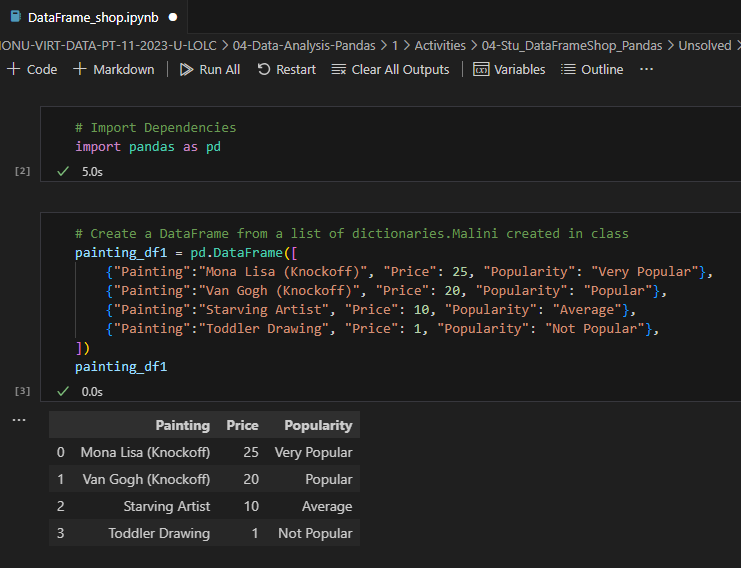
“State”: [“Western Australia”, “New South Wale”],

“Abbreviation: [“WA”, “NSW”]

A screenshot of a computer program

Description automatically generated

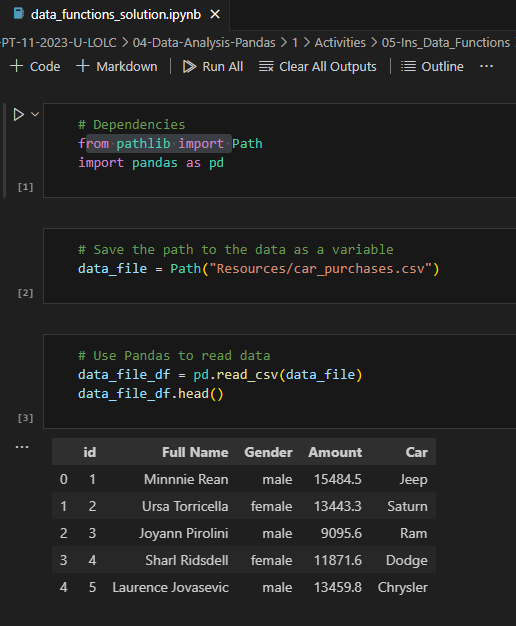
**Day 1, Activity 4 – Data Frame**

**Method 1**

**Method 2 (to use used most of the time)**

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Description automatically generated**

**Day 1 , Activity 5 - Data\_Functions**

**Describe (count, mean, std, min, max)**

**A screenshot of a computer

Description automatically generated**

**Mean / Sum / Unique / Value Count**

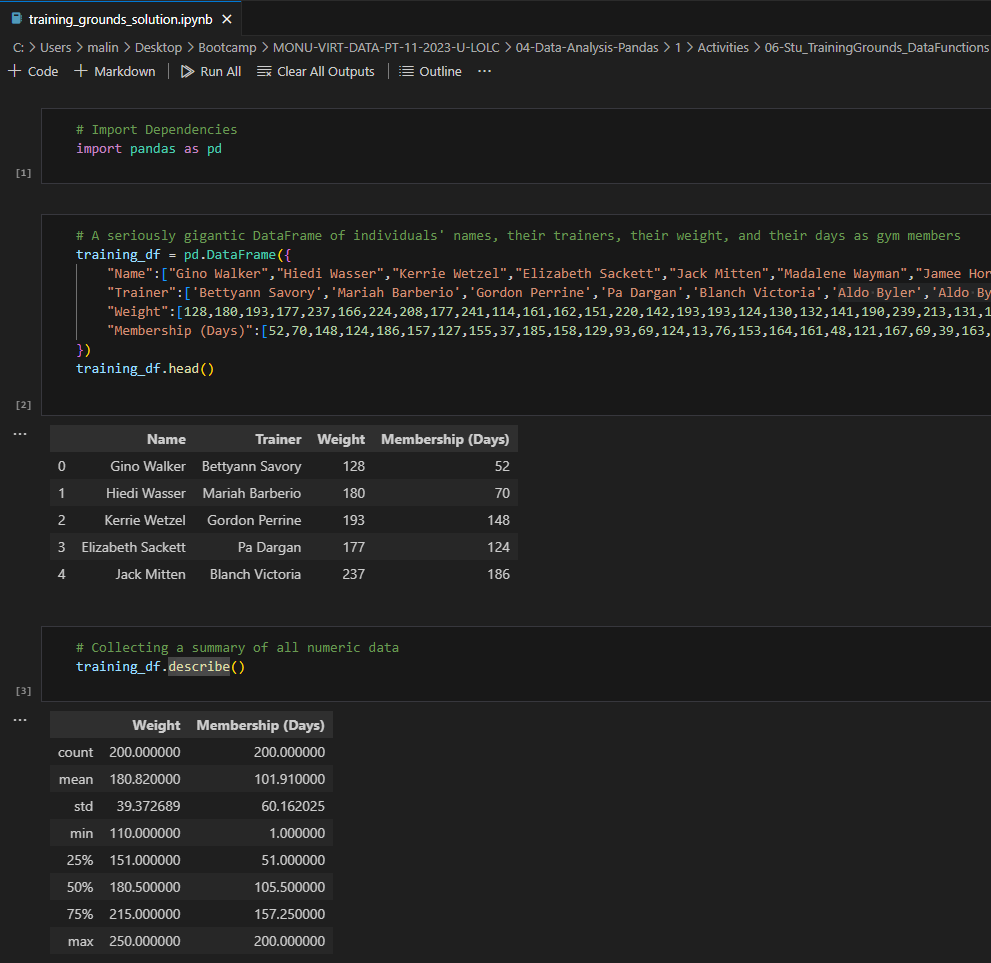
**A screenshot of a computer screen

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**Day 1, Activity 6 – Training Ground – Data Functions**

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Description automatically generated**

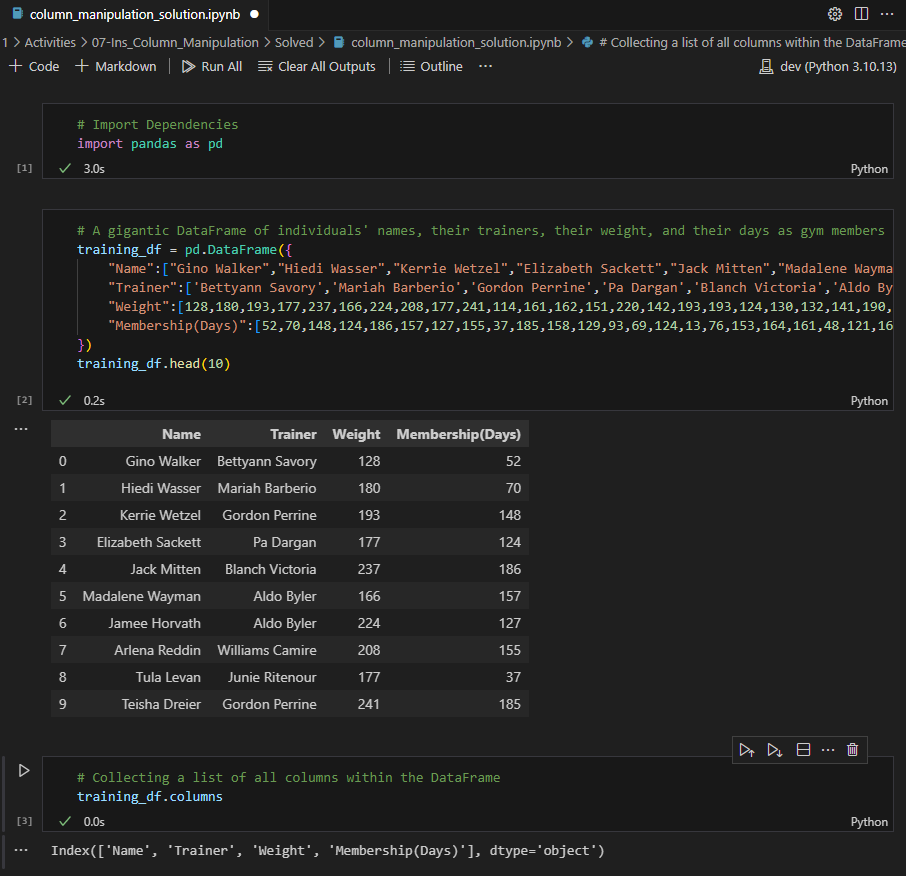
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**Another way of putting the above is**

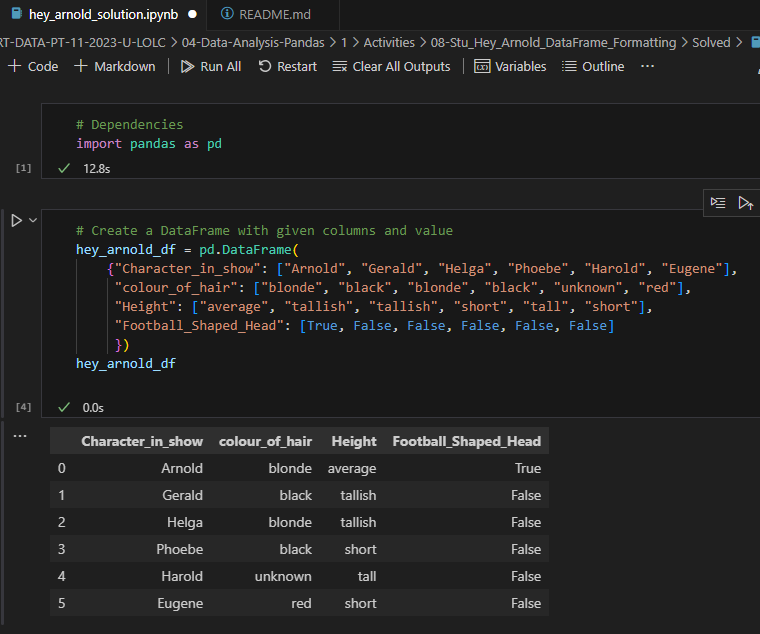
training\_df[“Membership (Weeks)”] = training\_df[“Membership (Days)”]/7

training\_df

**Day 1, Activity 7 – Column Manipulation**

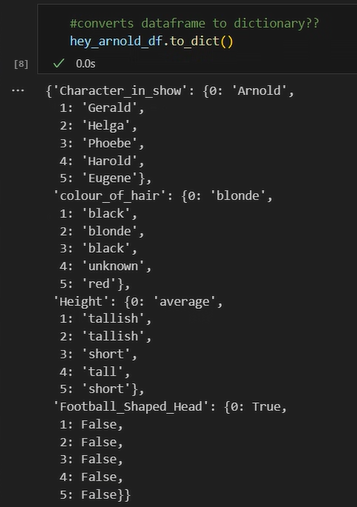
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**Day 1, Activity 8 – Data Frame Formatting**

**A screenshot of a computer

Description automatically generated**

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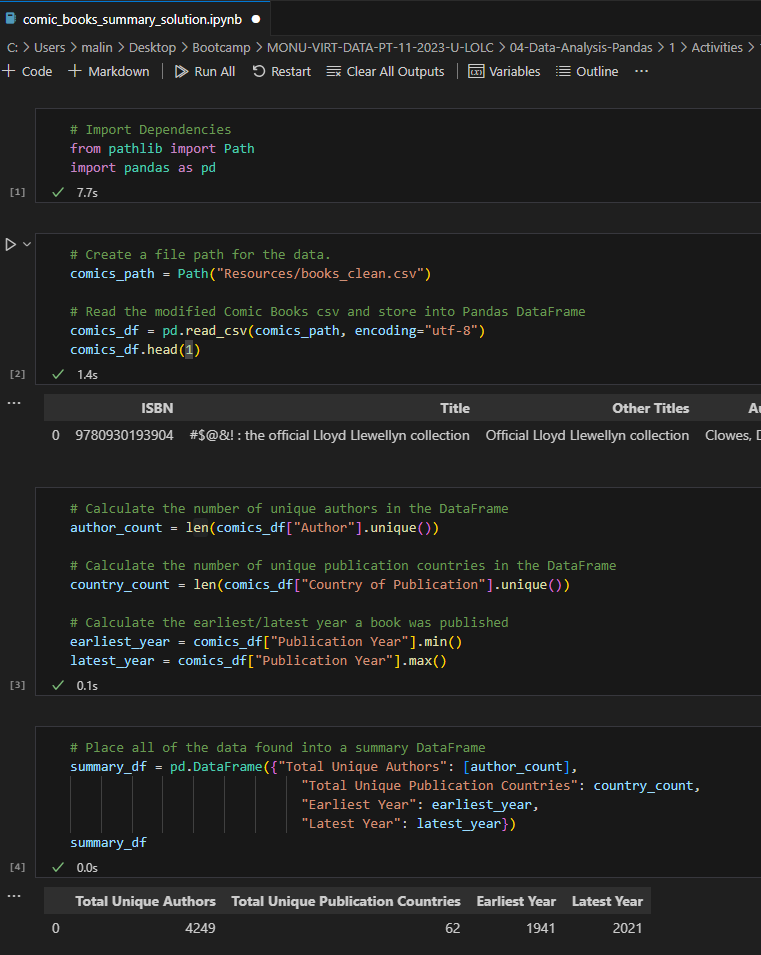
**Day 1, Activity 9 – Creating and Exporting to csv file**

**A screenshot of a computer program

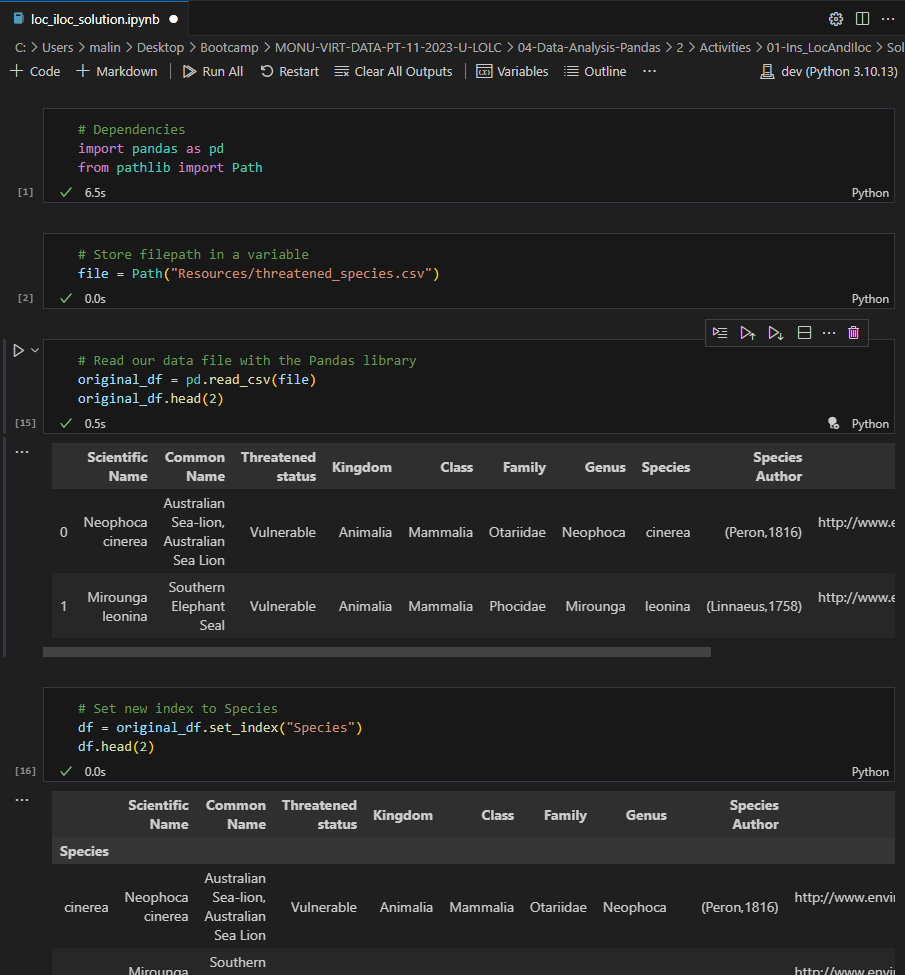
Description automatically generated**

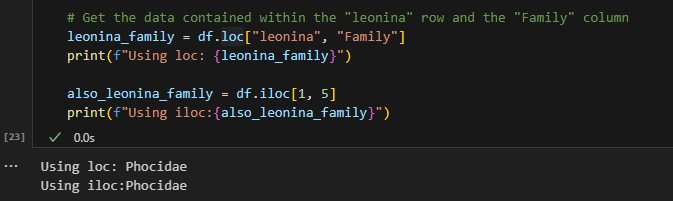
**Day 1, Activity 10 – Creating and Exporting to csv file (Student activity)**

**Day 1, Activity 11 – Display of Summary Data (Unique + len = count) , Min and Max**

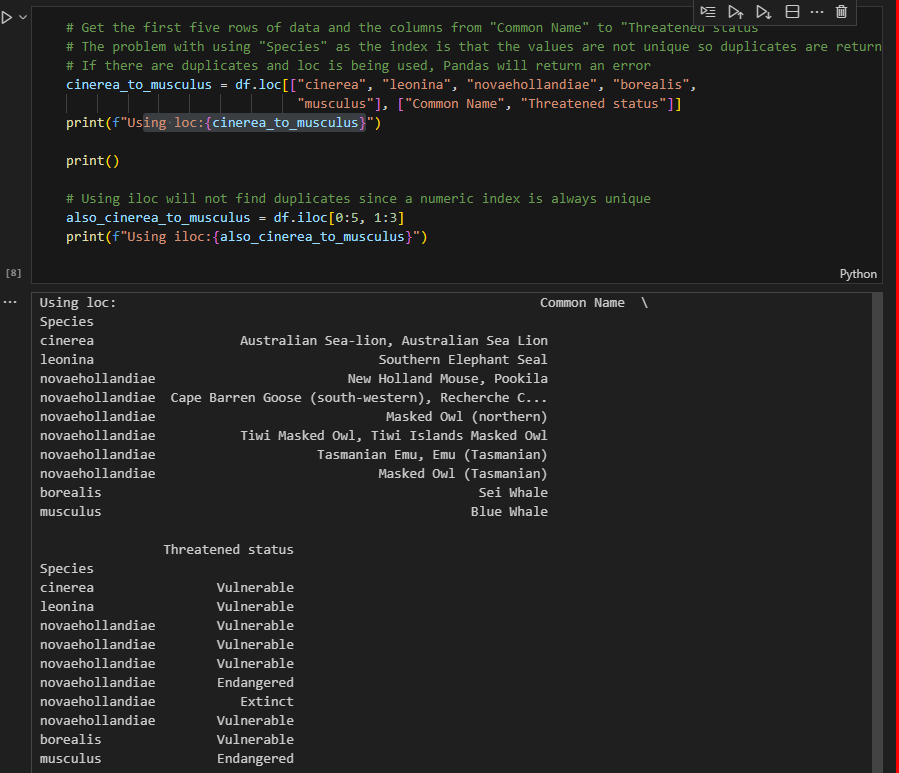
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**Day 2, Activity 1 – Loc and iLoc**

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**A screen shot of a computer

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**A screenshot of a computer

Description automatically generated**

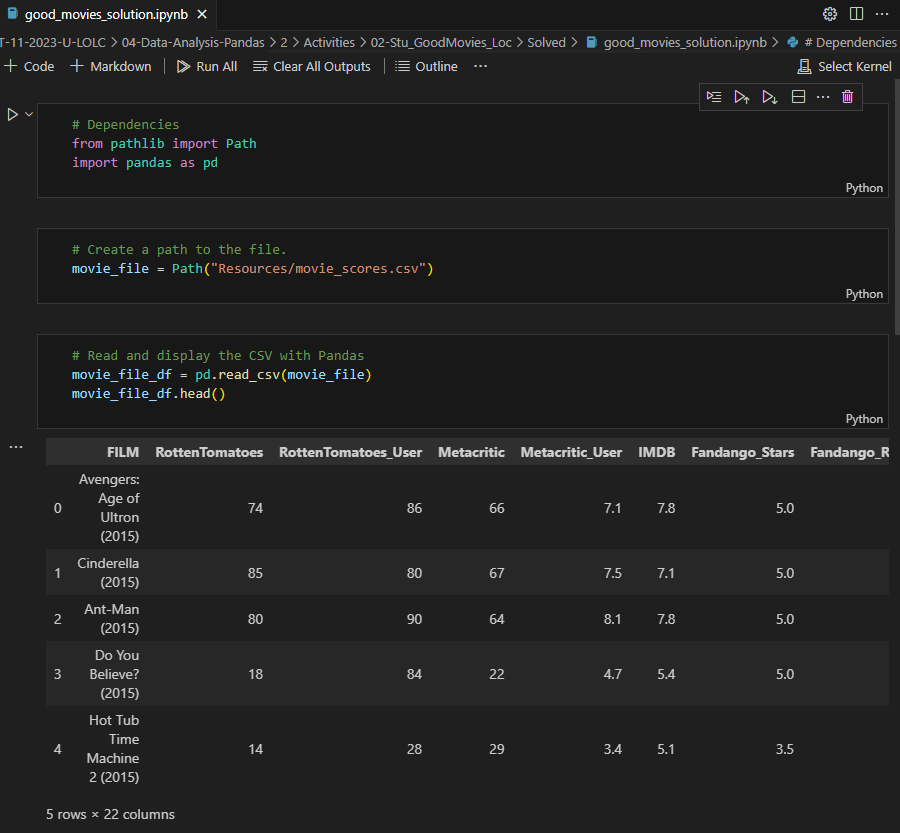
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**A screenshot of a computer

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**Day 2, Activity 2**

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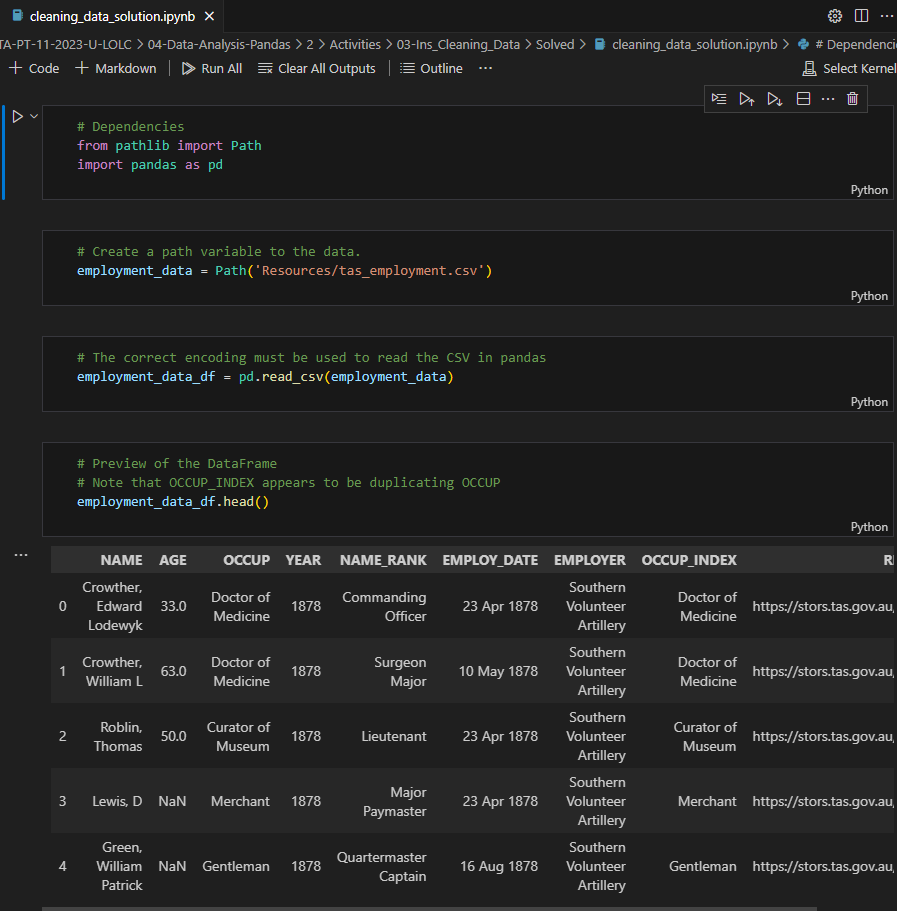
**A screenshot of a computer

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**A screenshot of a computer program

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**Day 2, Activity 3 – Cleaning Data**

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**Day 2, Activity 4 – Cleaning Data**

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**# Save the clean DataFrame to a CSV file without the index**

**portugal\_products\_df.to\_csv(“../Resources/dga\_lpg\_portugal.csv”, index=False)**

**Day 2, Activity 5 – Pandas recap**

**Fill NA**

**A screenshot of a computer

Description automatically generated**

**Drop NA**

**A screenshot of a computer

Description automatically generated**

**If it’s specific column add this to the end after any”) , subset=[“Surface Type”]**

**Filter (more than 1)**

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**A screenshot of a computer

Description automatically generated**

**A screenshot of a computer program

Description automatically generated**

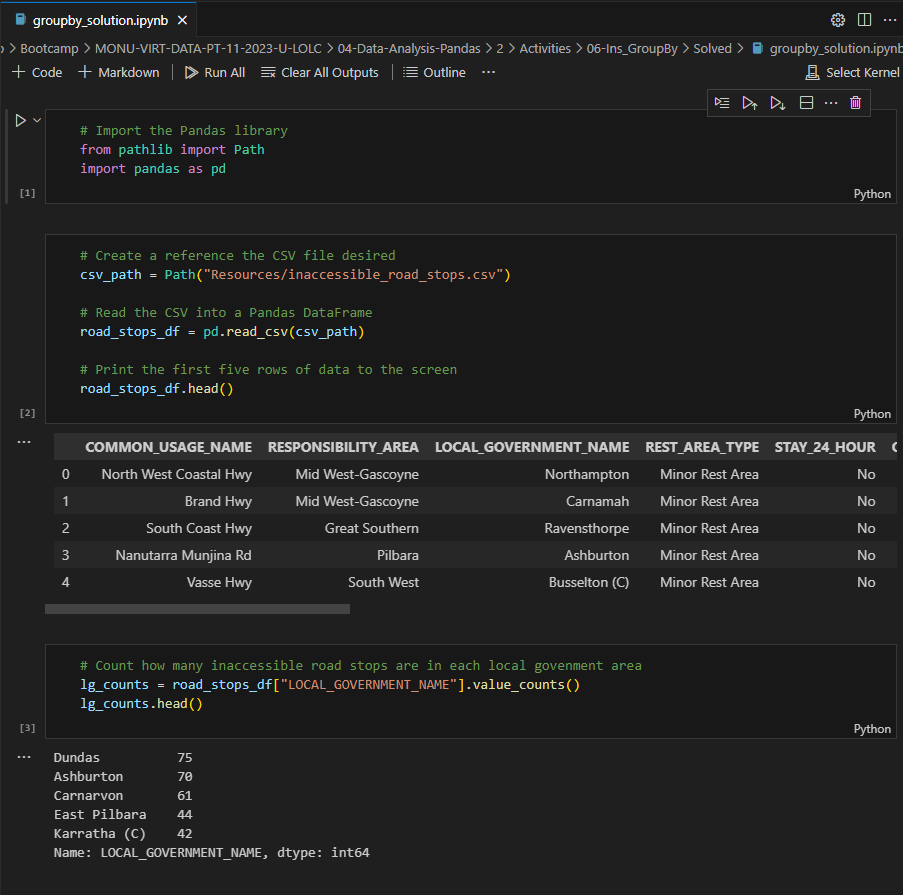
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**A screen shot of a computer

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**Day 2, Activity 6 – Group By**

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**A screenshot of a computer screen

Description automatically generated**

**A screenshot of a computer

Description automatically generated**

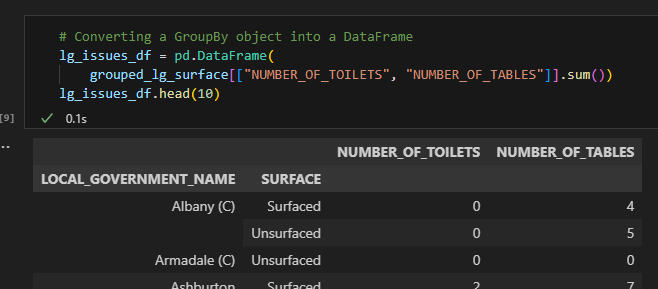
**A screenshot of a computer program

Description automatically generated**

**Sorting multiple columns**

**A screenshot of a computer screen

Description automatically generated**

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**A screenshot of a computer

Description automatically generated**

**Day 2, Activity 7 – Rented Properties (Group By)**

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Description automatically generated**

**A screenshot of a computer program

Description automatically generated**

del state\_totals\_df['LGA']

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Description automatically generated**

**A screenshot of a computer

Description automatically generated**

**A screen shot of a computer code

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**Day 2, Activity 8 – Sorting Data**

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Description automatically generated**

**A screenshot of a computer

Description automatically generated**

**Sorting by Multiple Columns by Highest to Lowest**

**A screenshot of a computer program

Description automatically generated**

**Sorting by Multiple Columns by Highest to Lowest**

**A screenshot of a computer program

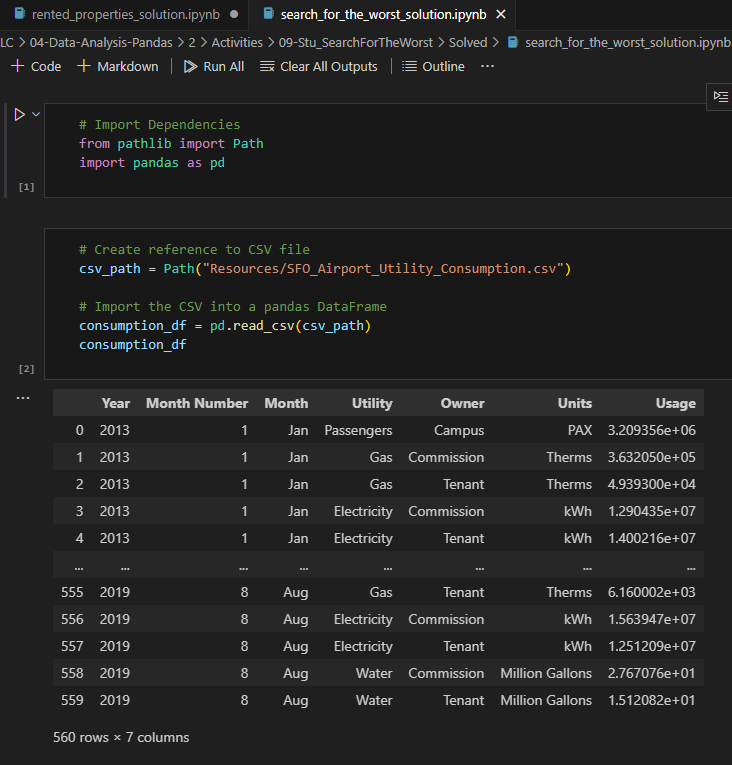
Description automatically generated**

**Reset index number**

**A screenshot of a computer

Description automatically generated**

**Day 2, Activity 9 – Search for the Worst**

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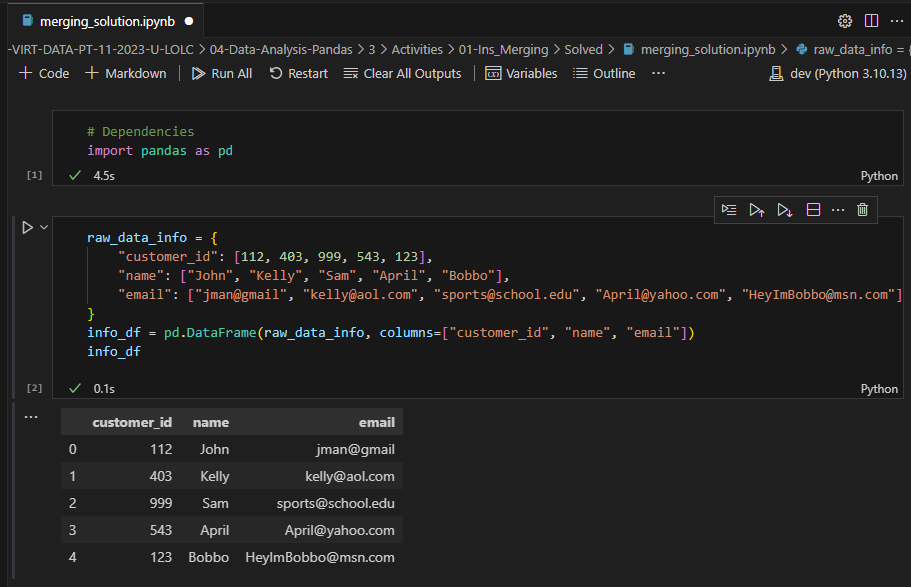
**A screenshot of a computer program

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**A screenshot of a computer

Description automatically generated**

**Day 3, Activity 1 – Merging (using manual raw data)**

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**A screenshot of a computer program

Description automatically generated**

**Inner Merge and Outer Merge**

**A screenshot of a computer

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**Left and Right Merge**

**A screenshot of a computer

Description automatically generated**

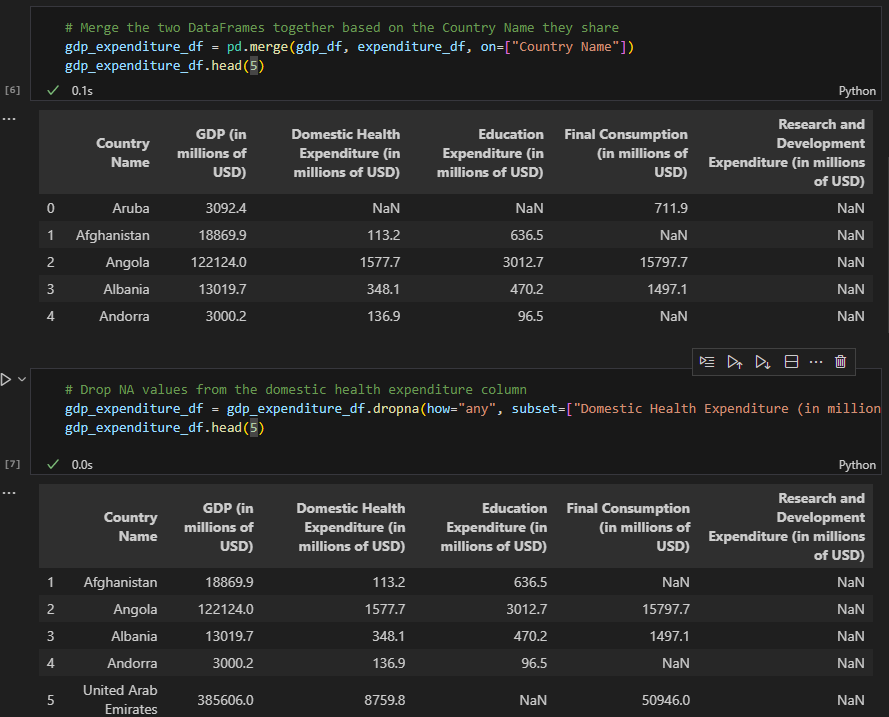
**Day 3, Activity 2 – Merging (using 2 CSV files) – Government Spending**

**A screenshot of a computer program

Description automatically generated**

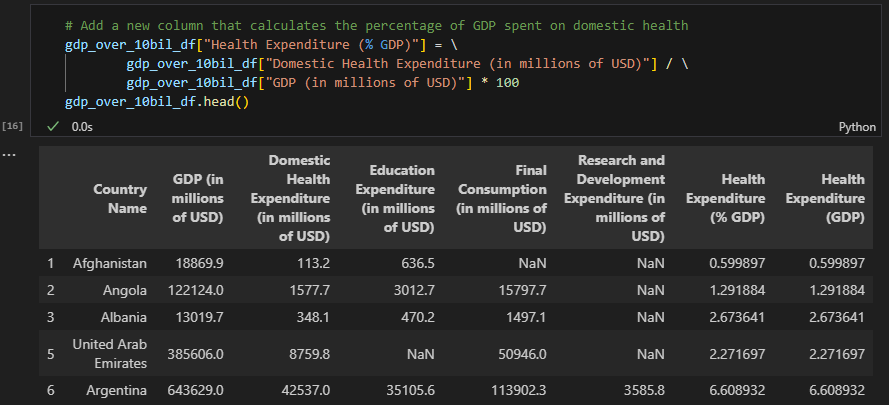
**A screenshot of a computer

Description automatically generated**

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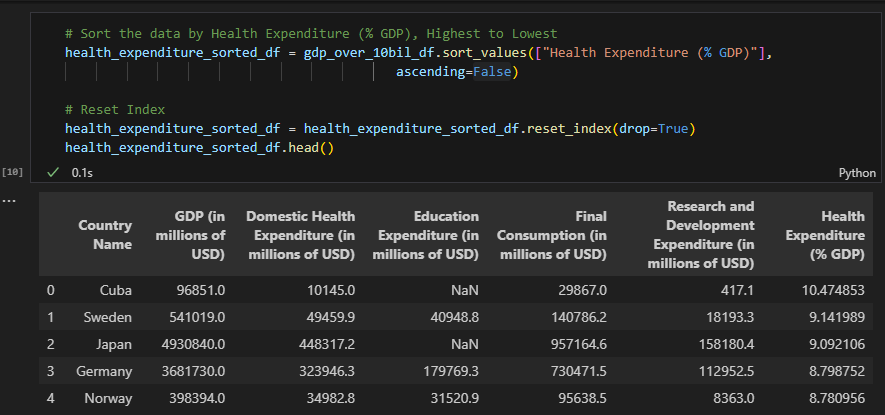
**A screenshot of a computer screen

Description automatically generated**

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**Highest to Lowest**

**Reset Index**

****

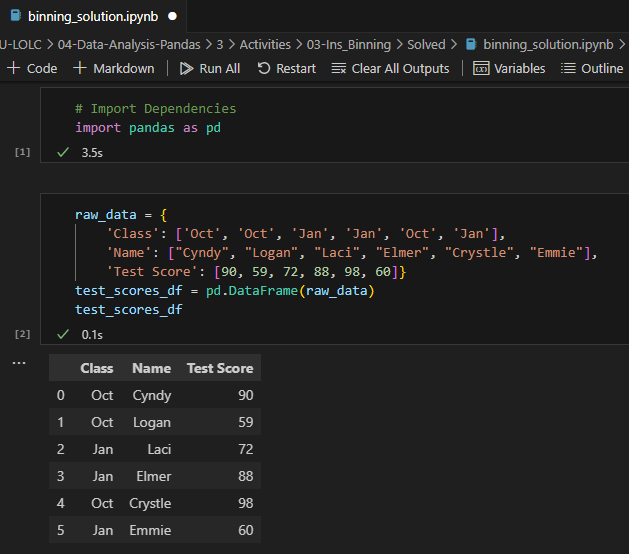
**The 0 is from the top of the list (i.e the below example – Cuba)**

**The -1 is from the bottom of the list (i.e the below example – Cameroon)**

**A screenshot of a computer screen

Description automatically generated**

**Day 3, Activity 3 – Binning (manual data)**

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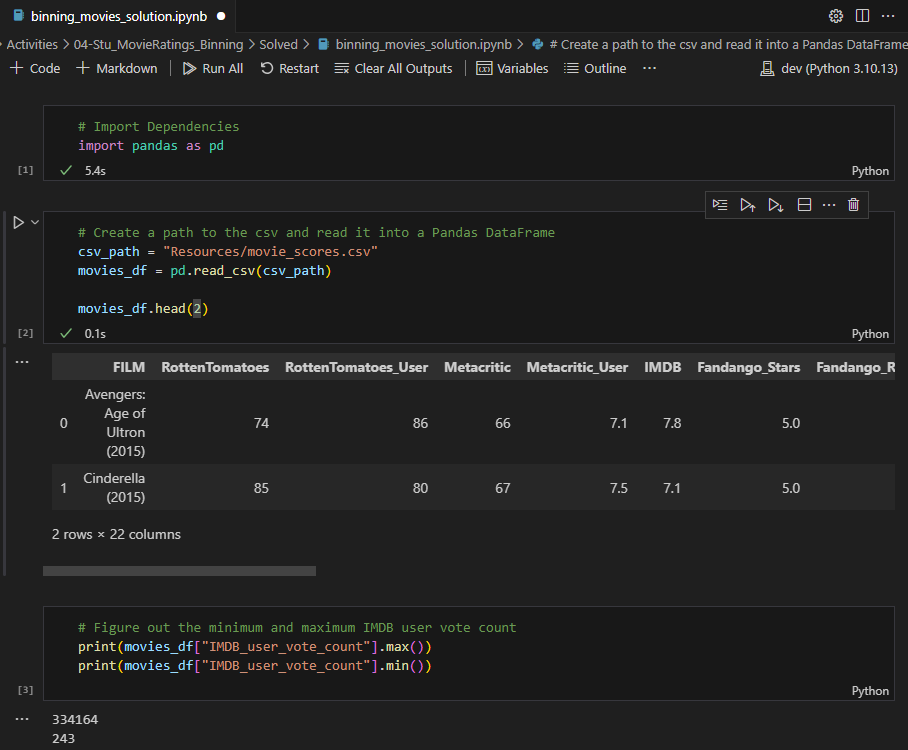
**A screenshot of a computer program

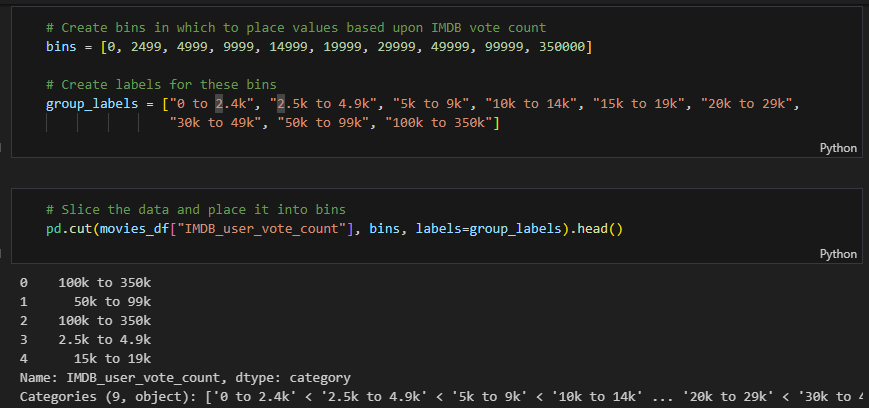
Description automatically generated**

**A screenshot of a computer program

Description automatically generated**

**Day 3, Activity 4 – Movie Ratings – Binning (via csv file)**

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**Binning Data 🡪 pd.cut**

**A screenshot of a computer

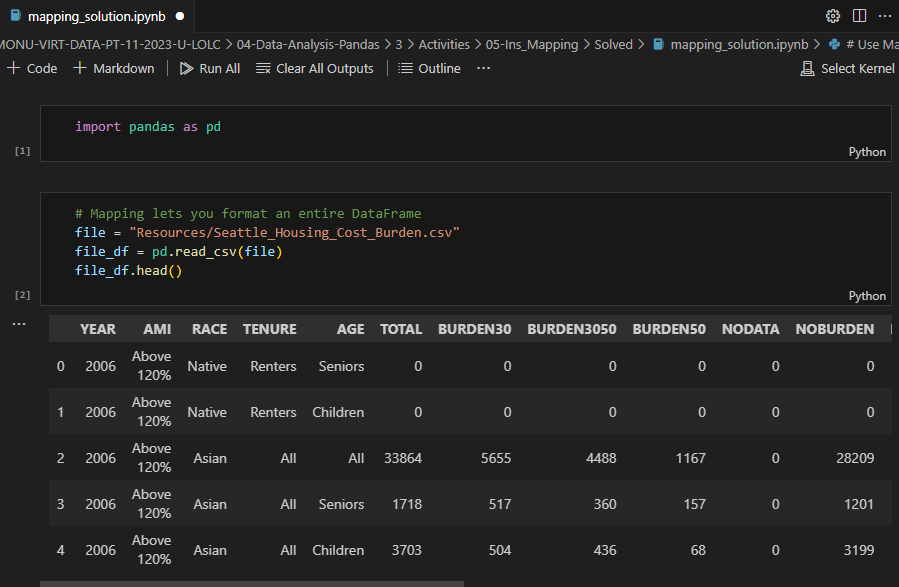
Description automatically generated**

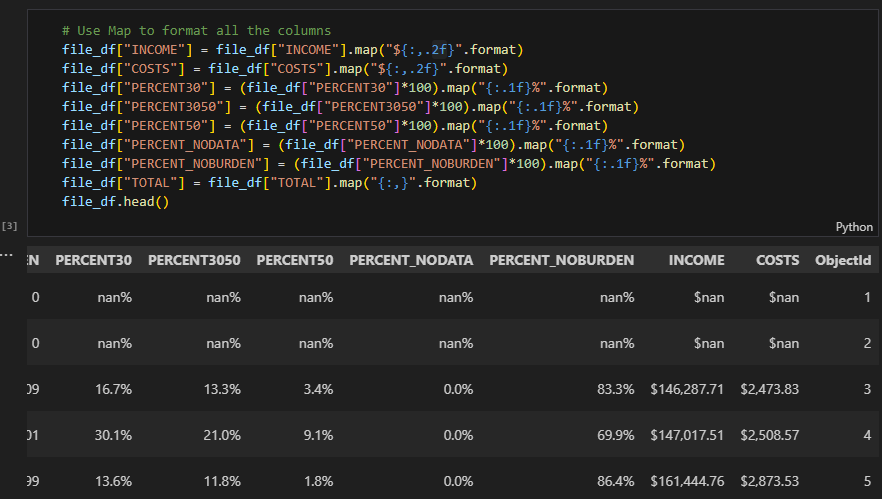
**Group by**

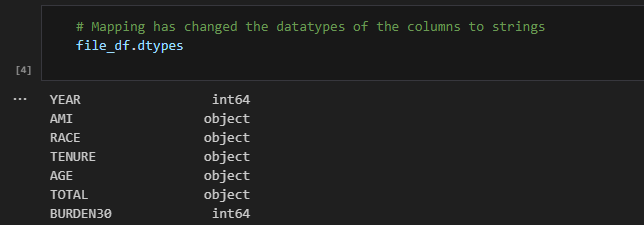
**A screenshot of a computer

Description automatically generated**

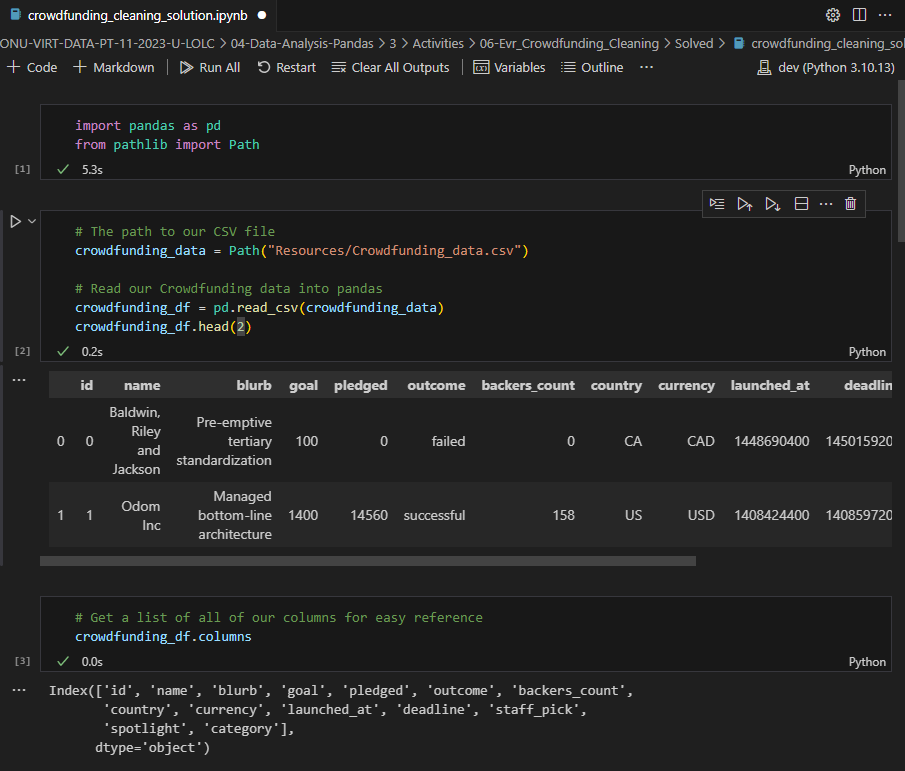
**Day 3, Activity 5 – Mapping / Formatting (via csv file)**

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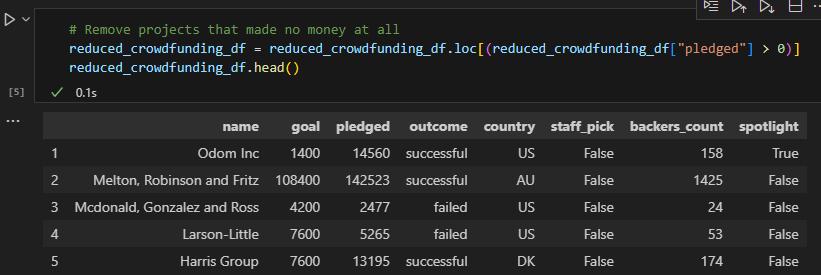
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**Day 3, Activity 6 – Evr Crowdfunding**

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**A screen shot of a computer

Description automatically generated**

**A screenshot of a computer program

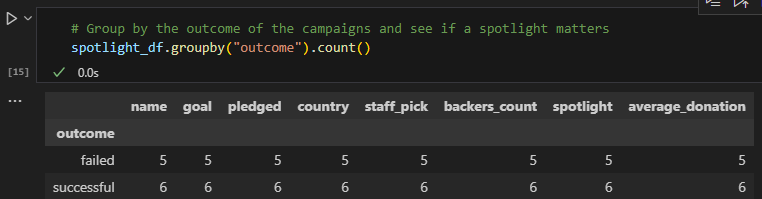
Description automatically generated**

**A screenshot of a computer program

Description automatically generated**

**A screen shot of a computer

Description automatically generated**

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