Concatenation

In [ ]:
```
import pandas as pd

df = pd.DataFrame({'A':[1,2,3]})
```

In [3]:
```
import pandas as pd
```

In [11]:
```
df1 = pd.DataFrame({
    'key1': ['A','A','B','B'],
    'key2': [1,2,1,2],
    'value1': [100,200,300,400]
})

# Define dataframe df2

df2 = pd.DataFrame({
    'key1':['A','A','B','B', 'C'],
    'key2':[1,2,1,3,1],
    'value2':[10,20,30,40,50]
})

# Demonstrate merge on multiple keys

df_merged = pd.merge(df1,df2, on=['key1', 'key2'], how= 'inner')
print("Merge result on multiple keys")
print(df_merged)
```

```
Merge result on multiple keys
  key1  key2  value1  value2
0    A     1     100      10
1    A     2     200      20
2    B     1     300      30
```

In [15]:
```
# Sample dataframes
df_enrollments = pd.DataFrame({
    'student_id':[101,102, 101,103],
    'course_id':[301,302, 301,304],
    'semester':['2024 Spring', '2024 Spring', '2024 Fall','2024 Spring'],
    'grades': ['A','B','A+','C']
})

df_new_grades = pd.DataFrame({
    'student_id':[101,102, 101,103,105],
    'course_id':[301,302, 301,304,300],
    'semester':['2024 Spring', '2024 Spring', '2024 Fall','2024 Spring','2024 Spring'],
    'grades': ['A-','B+','A','B-', 'A']
})

# Merging on multiple keys

df_merged = pd.merge(df_enrollments,df_new_grades, on = ['student_id','course_id','semes

print(df_merged)
```

```
   student_id  course_id     semester grades_x grades_y
0         101        301  2024 Spring        A       A-
1         102        302  2024 Spring        B       B+
2         101        301    2024 Fall       A+        A
3         103        304  2024 Spring        C       B-
```

In [17]:

```
df1= pd.DataFrame({
    'key':['A','B','C'],
    'value':[1,2,3]
})

df2 = pd.DataFrame({
    'key':['A','B','D'],
    'value':[4,5,6]
})
```

In [19]:

```
# Join without suffixes will result an error
joined_df = df1.join(df2.set_index('key'), on='key') # This would cause an issue
```

```
---------------------------------------------------------------------------
ValueError                                Traceback (most recent call last)
Cell In[19], line 2
      1 # Join without suffixes will result an error
----> 2 joined_df = df1.join(df2.set_index('key'), on='key')

File ~/anaconda3/lib/python3.11/site-packages/pandas/core/frame.py:9729, in DataFrame.jo
in(self, other, on, how, lsuffix, rsuffix, sort, validate)
   9566 def join(
   9567     self,
   9568     other: DataFrame | Series | Iterable[DataFrame | Series],
   (...)
   9574     validate: str | None = None,
   9575 ) -> DataFrame:
   9576     """
   9577     Join columns of another DataFrame.
   9578 
   (...)
   9727     5  K1  A5   B1
   9728     """
-> 9729     return self._join_compat(
   9730         other,
   9731         on=on,
   9732         how=how,
   9733         lsuffix=lsuffix,
   9734         rsuffix=rsuffix,
   9735         sort=sort,
   9736         validate=validate,
   9737     )

File ~/anaconda3/lib/python3.11/site-packages/pandas/core/frame.py:9768, in DataFrame._j
oin_compat(self, other, on, how, lsuffix, rsuffix, sort, validate)
   9758     if how == "cross":
   9759         return merge(
   9760             self,
   9761             other,
   (...)
   9766             validate=validate,
   9767         )
-> 9768     return merge(
   9769         self,
   9770         other,
   9771         left_on=on,
   9772         how=how,
   9773         left_index=on is None,
   9774         right_index=True,
   9775         suffixes=(lsuffix, rsuffix),
   9776         sort=sort,
   9777         validate=validate,
   9778     )
   9779 else:
   9780     if on is not None:

File ~/anaconda3/lib/python3.11/site-packages/pandas/core/reshape/merge.py:162, in merge
(left, right, how, on, left_on, right_on, left_index, right_index, sort, suffixes, copy,
indicator, validate)
    131 @Substitution("\nleft : DataFrame or named Series")
    132 @Appender(_merge_doc, indents=0)
    133 def merge(
   (...)
    146     validate: str | None = None,
    147 ) -> DataFrame:
    148     op = _MergeOperation(
    149         left,
    150         right,
   (...)
    160         validate=validate,
    161     )
--> 162     return op.get_result(copy=copy)

File ~/anaconda3/lib/python3.11/site-packages/pandas/core/reshape/merge.py:811, in _Merg
eOperation.get_result(self, copy)
    807     self.left, self.right = self._indicator_pre_merge(self.left, self.right)
    809 join_index, left_indexer, right_indexer = self._get_join_info()
--> 811 result = self._reindex_and_concat(
    812     join_index, left_indexer, right_indexer, copy=copy
    813 )
    814 result = result.__finalize__(self, method=self._merge_type)
    816 if self.indicator:

File ~/anaconda3/lib/python3.11/site-packages/pandas/core/reshape/merge.py:763, in _Merg
eOperation._reindex_and_concat(self, join_index, left_indexer, right_indexer, copy)
    760 left = self.left[:]
    761 right = self.right[:]
--> 763 llabels, rlabels = _items_overlap_with_suffix(
    764     self.left._info_axis, self.right._info_axis, self.suffixes
    765 )
    767 if left_indexer is not None and not is_range_indexer(left_indexer, len(left)):
    768     # Pinning the index here (and in the right code just below) is not
    769     #  necessary, but makes the `.take` more performant if we have e.g.
    770     #  a MultiIndex for left.index.
    771     lmgr = left._mgr.reindex_indexer(
    772         join_index,
    773         left_indexer,
   (...)
    778         use_na_proxy=True,
    779     )

File ~/anaconda3/lib/python3.11/site-packages/pandas/core/reshape/merge.py:2604, in _ite
ms_overlap_with_suffix(left, right, suffixes)
   2601 lsuffix, rsuffix = suffixes
   2603 if not lsuffix and not rsuffix:
-> 2604     raise ValueError(f"columns overlap but no suffix specified: {to_rename}")
   2606 def renamer(x, suffix):
   2607     """
   2608     Rename the left and right indices.
   2609 
   (...)
   2620     x : renamed column name
   2621     """

ValueError: columns overlap but no suffix specified: Index(['value'], dtype='object')
```

In [21]:

```
# Joining with suffixes to resolve and handle the overlap 'value' column names
joined_df = df1.join(df2.set_index('key'), on='key', lsuffix='_left', rsuffix='_right')
print(joined_df)
```

```
  key  value_left  value_right
0   A           1          4.0
1   B           2          5.0
2   C           3          NaN
```

In [25]:

```
import pandas as pd

df1 = pd.DataFrame({
    'value1' :[1,2,3]

}, index= ['A','B','C'] )

df2 = pd.DataFrame({
    'key':[ 'B','C', 'D'],
    'value2': [4,5,6]
})
```

In [29]:

```
# Join df1(caller) on its index with df2 using 'key' column of df2(callee)
result =  df1.join(df2.set_index('key'), on =df1.index)
print(result)
```

```
   value1  value2
A       1     NaN
B       2     4.0
C       3     5.0
```

In [33]:

```
# Sampole data frames

df1 = pd.DataFrame(
    {
        'employe_id':[101,102,103],
        'name':['Alice', 'Bob', 'Charlie']
    }
)

df2 = pd.DataFrame(
    {
        'id':[101,102,104],
        'salary':[50000, 60000,65000]
    }
)

# Merging using different key from 2 dataframes
merged_df = pd.merge(df1, df2, left_on = 'employe_id', right_on= 'id',how='inner')
print(merged_df)
```

```
   employe_id   name   id  salary
0         101  Alice  101   50000
1         102    Bob  102   60000
```

In [35]:

```
import pandas as pd

# Creating DataFrames for each table
df_alignment = pd.DataFrame({
    'id': [1, 2, 3, 4],
    'alignment': ['Good', 'Bad', 'Neutral', 'N/A']
})

df_attribute = pd.DataFrame({
    'id': [1, 2, 3, 4, 5, 6],
    'attribute_name': ['Intelligence', 'Strength', 'Speed', 'Durability', 'Power', 'Comb
})

df_colour = pd.DataFrame({
    'id': list(range(1, 36)),
    'colour': ['No Colour', 'Amber', 'Auburn', 'Black', 'Black/Blue', 'Blond', 'Blue', '
               'Brown/Black', 'Brown/White', 'Gold', 'Grey', 'Green', 'Green/Blue', 'Haz
               'Orange', 'Orange/White', 'Pink', 'Purple', 'Red', 'Red/Black', 'Red/Grey
               'Silver', 'Strawberry Blond', 'Violet', 'White', 'White/Red', 'Yellow', '
})

df_gender = pd.DataFrame({
    'id': [1, 2, 3],
    'gender': ['Male', 'Female', 'N/A']
})

df_publisher = pd.DataFrame({
    'id': list(range(1, 26)),
    'publisher_name': ['', 'ABC Studios', 'Dark Horse Comics', 'DC Comics', 'George Luca
                       'HarperCollins', 'Icon Comics', 'IDW Publishing', 'Image Comics',
                       'J. R. R. Tolkien', 'Marvel Comics', 'Microsoft', 'NBC - Heroes',
                       'Shueisha', 'Sony Pictures', 'South Park', 'Star Trek', 'SyFy', '
                       'Titan Books', 'Universal Studios', 'Wildstorm']
})

df_race = pd.DataFrame({
    'id': list(range(1, 62)),
    'race': ['-', 'Alien', 'Alpha', 'Amazon', 'Android', 'Animal', 'Asgardian', 'Atlante
             'Bolovaxian', 'Clone', 'Cosmic Entity', 'Cyborg', 'Czarnian', 'Dathomirian
             'Demon', 'Eternal', 'Flora Colossus', 'Frost Giant', 'God / Eternal', 'Gori
             'Human / Altered', 'Human / Clone', 'Human / Cosmic', 'Human / Radiation',
             'Human-Vulcan', 'Human-Vuldarian', 'Icthyo Sapien', 'Inhuman', 'Kakaranthar
             'Luphomoid', 'Maiar', 'Martian', 'Metahuman', 'Mutant', 'Mutant / Clone', '
             'Parademon', 'Planet', 'Rodian', 'Saiyan', 'Spartoi', 'Strontian', 'Symbiot
             'Ungaran', 'Vampire', 'Xenomorph XX121', 'Yautja', 'Yoda\'s species', 'Zen-
})
```

In [37]:

```
# Creating the 'superhero' DataFrame
df_superhero = pd.DataFrame({
    'id': list(range(1, 51)),
    'superhero_name': [
        '3-D Man', 'A-Bomb', 'Abe Sapien', 'Abin Sur', 'Abomination', 'Abraxas', 'Absorb
        'Adam Strange', 'Agent 13', 'Agent Bob', 'Agent Zero', 'Air-Walker', 'Ajax', 'Al
        'Alex Woolsly', 'Alfred Pennyworth', 'Alien', 'Allan Quatermain', 'Amazo', 'Ammo
        'Angel', 'Angel Dust', 'Angel Salvadore', 'Angela', 'Animal Man', 'Annihilus', '
        'Anti-Monitor', 'Anti-Spawn', 'Anti-Venom', 'Apocalypse', 'Aquababy', 'Aqualad',
        'Archangel', 'Arclight', 'Ardina', 'Ares', 'Ares', 'Ariel', 'Armor', 'Arsenal',
    ],
    'full_name': [
        'Charles Chandler', 'Richard Milhouse Jones', 'Abraham Sapien', '-', 'Emil Blons
        '-', 'Adam Strange', 'Sharon Carter', 'Bob', 'Christoph Nord', 'Gabriel Lan', No
        'Alex Woolsly', 'Alfred Thaddeus Crane Pennyworth', 'Xenomorph', None, '-', '-',
        'Liam', 'Christina', 'Angel Salvadore Bohusk', '-', 'Bernhard Baker', 'Annihilus
        'Scott Lang', None, 'Jason Wynn', 'Edward Charles Allan Brock', 'En Sabah Nur',
        'Orin', 'Julia Carpenter', 'Warren Kenneth Worthington III', 'Philippa Sontag',
        'Hisako Ichiki', 'Roy William Harper, Jr.', None, '-'
    ],
    'gender_id': [1] * 50,
    'eye_colour_id': [9, 33, 7, 7, 14, 7, 7, 7, 7, 7, 9, 1, 7, 9, 7, 1, 1, 7, 1, 1, 23,
    'hair_colour_id': [13, 1, 1, 1, 1, 4, 1, 6, 6, 6, 9, 1, 31, 4, 6, 1, 1, 4, 1, 1, 1,
    'skin_colour_id': [1] * 50,
    'race_id': [1, 24, 33, 55, 28, 12, 24, 1, 24, 1, 24, 1, 1, 13, 1, 24, 1, 24, 57, 1,
    'publisher_id': [13, 13, 3, 4, 13, 13, 13, 15, 4, 13, 13, 13, 13, 13, 4, 25, 15, 4,
    'alignment_id': [1, 1, 1, 1, 2, 2, 2, 1, 1, 1, 1, 1, 2, 2, 1, 2, 1, 1, 2, 1, 2, 2, 1
    'height_cm': [188, 203, 191, 185, 203, None, 193, None, 185, 173, 178, 191, 188, 193
    'weight_kg': [90, 441, 65, 90, 441, None, 122, None, 88, 61, 81, 104, 108, 90, 90, N
})

# Display the DataFrame
print("Superhero DataFrame:")
print(df_superhero)
```

```
Superhero DataFrame:
    id     superhero_name                         full_name  gender_id  \
0    1            3-D Man                  Charles Chandler          1
1    2             A-Bomb            Richard Milhouse Jones          1
2    3         Abe Sapien                    Abraham Sapien          1
3    4           Abin Sur                                 -          1
4    5        Abomination                      Emil Blonsky          1
5    6            Abraxas                           Abraxas          1
6    7      Absorbing Man                              None          1
7    8        Adam Monroe                                 -          1
8    9       Adam Strange                      Adam Strange          1
9   10           Agent 13                     Sharon Carter          1
10  11          Agent Bob                               Bob          1
11  12         Agent Zero                    Christoph Nord          1
12  13         Air-Walker                       Gabriel Lan          1
13  14               Ajax                              None          1
14  15         Alan Scott                              None          1
15  16        Alex Mercer               Alexander J. Mercer          1
16  17       Alex Woolsly                      Alex Woolsly          1
17  18  Alfred Pennyworth  Alfred Thaddeus Crane Pennyworth          1
18  19              Alien                         Xenomorph          1
19  20   Allan Quatermain                              None          1
20  21              Amazo                                 -          1
21  22               Ammo                                 -          1
22  23     Ando Masahashi                    Ando Masahashi          1
23  24              Angel                              Liam          1
24  25              Angel                              Liam          1
25  26         Angel Dust                         Christina          1
26  27    Angel Salvadore            Angel Salvadore Bohusk          1
27  28             Angela                                 -          1
28  29         Animal Man                    Bernhard Baker          1
29  30          Annihilus                         Annihilus          1
30  31            Ant-Man                Henry Jonathan Pym          1
31  32         Ant-Man II                        Scott Lang          1
32  33       Anti-Monitor                              None          1
33  34         Anti-Spawn                        Jason Wynn          1
34  35         Anti-Venom        Edward Charles Allan Brock          1
35  36         Apocalypse                      En Sabah Nur          1
36  37           Aquababy                 Arthur Curry, Jr.          1
37  38            Aqualad                             Garth          1
38  39            Aquaman                              Orin          1
39  40            Arachne                   Julia Carpenter          1
40  41          Archangel    Warren Kenneth Worthington III          1
41  42           Arclight                   Philippa Sontag          1
42  43             Ardina                                 -          1
43  44               Ares                                 -          1
44  45               Ares                                 -          1
45  46              Ariel                             Ariel          1
46  47              Armor                     Hisako Ichiki          1
47  48            Arsenal           Roy William Harper, Jr.          1
48  49          Astro Boy                              None          1
49  50              Atlas                                 -          1

    eye_colour_id  hair_colour_id  skin_colour_id  race_id  publisher_id  \
0               9              13               1        1            13
1              33               1               1       24            13
2               7               1               1       33             3
```

```
3               7               1               1       55             4
4              14               1               1       28            13
5               7               4               1       12            13
6               7               1               1       24            13
7               7               6               1        1            15
8               7               6               1       24             4
9               7               6               1        1            13
10              9               9               1       24            13
11              1               1               1        1            13
12              7              31               1        1            13
13              9               4               1       13            13
14              7               6               1        1             4
15              1               1               1       24            25
16              1               1               1        1            15
17              7               4               1       24             4
18              1               1               1       57             3
19              1               1               1        1            25
20             23               1               1        5             4
21              9               4               1       24            13
22              1               1               1        1            15
23              1               1               1       56             3
24              7               6               1        1            13
25             33               4               1       42            13
26              9               4               1        1            13
27              1               1               1        1            10
28              7               6               1       24             4
29             14               1               1        1            13
30              7               6               1       24            13
31              7               6               1       24            13
32             33               1               1       21             4
33              1               1               1        1            10
34              7               6               1       52            13
35             23               4               1       42            13
36              7               6               1        1             4
37              7               4               1        8             4
38              7               6               1        8             4
39              7               6               1       24            13
40              7               6               1       42            13
41             30              22               1        1            13
42             31              19               1        2            13
43             23               4               1       21             4
44              9               9               1        1            13
45             22              21               1        1            13
46              4               4               1        1            13
47              1               1               1       24             4
48              9               4               1        1             1
49              7               9               1       21             4

    alignment_id  height_cm  weight_kg
0            1.0      188.0       90.0
1            1.0      203.0      441.0
2            1.0      191.0       65.0
3            1.0      185.0       90.0
4            2.0      203.0      441.0
5            2.0        NaN        NaN
6            2.0      193.0      122.0
7            1.0        NaN        NaN
8            1.0      185.0       88.0
9            1.0      173.0       61.0
10           1.0      178.0       81.0
11           1.0      191.0      104.0
12           2.0      188.0      108.0
13           2.0      193.0       90.0
14           1.0      180.0       90.0
```

```
15           2.0        NaN        NaN
16           1.0        NaN        NaN
17           1.0      178.0       72.0
18           2.0      244.0      169.0
19           1.0        NaN        NaN
20           2.0      257.0      173.0
21           2.0      188.0      101.0
22           1.0        NaN        NaN
23           1.0        NaN        NaN
24           1.0      183.0       68.0
25           1.0      165.0       57.0
26           1.0      163.0       54.0
27           2.0        NaN        NaN
28           1.0      183.0       83.0
29           2.0      180.0       90.0
30           1.0      211.0      122.0
31           1.0      183.0       86.0
32           2.0       61.0        NaN
33           2.0        NaN        NaN
34           NaN      229.0      358.0
35           2.0      213.0      135.0
36           1.0        NaN        NaN
37           1.0      178.0      106.0
38           1.0      185.0      146.0
39           1.0      175.0       63.0
40           1.0      183.0       68.0
41           2.0      173.0       57.0
42           1.0      193.0       98.0
43           3.0      208.0      162.0
44           1.0      185.0      270.0
45           1.0      165.0       59.0
46           1.0      163.0       50.0
47           1.0        NaN        NaN
48           1.0        NaN        NaN
49           2.0      198.0      126.0
```

In [49]:

```
# Convert each dataframe to json string and load to python dictionary
alignement_json = json.loads(df_alignment.to_json(orient='records'))
attribute_json = json.loads(df_attribute.to_json(orient='records'))
colour_json = json.loads(df_colour.to_json(orient='records'))
gender_json = json.loads(df_gender.to_json(orient='records'))
publisher_json = json.loads(df_publisher.to_json(orient='records'))
race_json = json.loads(df_race.to_json(orient='records'))
superhero_json = json.loads(df_superhero.to_json(orient='records'))
```

In [51]:

```
# Combine all dictionaries to one
combined_json = {
    'alignment': alignement_json,
    'attribute': attribute_json,
    'colour': colour_json,
    'gender': gender_json,
    'publisher': publisher_json,
    'race': race_json,
    'super_hero': superhero_json
}
```

In [53]:

```
# Save to a json file with indentation with readibility
with open ('combined_super_hero.json', 'w') as file:
    json.dump(combined_json, file, indent=4)

print("Data saved to 'combined_super_hero.json'")
```

```
Data saved to 'combined_super_hero.json'
```

In [5]:

```
jupyter-nbconvert --to  Aug_25th.ipynb
```

```
  Cell In[5], line 1
    jupyter-nbconvert --to  Aug_25th.ipynb
                            ^
SyntaxError: invalid syntax
```

In [58]:

```
conda install pypdf2
```

```
Error while loading conda entry point: anaconda-cloud-auth (cannot import name 'ChannelA
uthBase' from 'conda.plugins.types' (/Users/josephkambham/anaconda3/lib/python3.11/site-
packages/conda/plugins/types.py))
Error while loading conda entry point: anaconda-cloud-auth (cannot import name 'ChannelA
uthBase' from 'conda.plugins.types' (/Users/josephkambham/anaconda3/lib/python3.11/site-
packages/conda/plugins/types.py))
Collecting package metadata (current_repodata.json): done
Solving environment: /
The environment is inconsistent, please check the package plan carefully
The following packages are causing the inconsistency:

  - defaults/osx-arm64::aext-core-server==4.0.15=py311hca03da5_1
  - defaults/osx-arm64::_anaconda_depends==2023.09=py311_openblas_1
  - defaults/osx-arm64::notebook==7.0.8=py311hca03da5_2
  - defaults/osx-arm64::aext-share-notebook==4.0.15=py311hca03da5_0
  - defaults/noarch::argon2-cffi==21.3.0=pyhd3eb1b0_0
  - defaults/osx-arm64::twisted==22.10.0=py311h80987f9_0
  - defaults/osx-arm64::jupyterlab_server==2.25.1=py311hca03da5_0
  - defaults/osx-arm64::anaconda-cloud-auth==0.5.0=py311hca03da5_0
  - defaults/osx-arm64::jupyter_server_ydoc==0.8.0=py311hca03da5_1
  - defaults/osx-arm64::s3fs==2023.4.0=py311hca03da5_0
  - defaults/osx-arm64::datasets==2.12.0=py311hca03da5_0
  - defaults/osx-arm64::aext-core==4.0.15=py311hca03da5_jl4_0
  - defaults/osx-arm64::huggingface_hub==0.15.1=py311hca03da5_0
  - defaults/osx-arm64::notebook-shim==0.2.2=py311hca03da5_0
  - defaults/osx-arm64::transformers==4.32.1=py311hca03da5_0
  - defaults/osx-arm64::nbclassic==0.5.5=py311hca03da5_0
  - defaults/osx-arm64::jupyter_server_fileid==0.9.0=py311hca03da5_0
  - defaults/osx-arm64::hvplot==0.8.4=py311hca03da5_0
  - defaults/osx-arm64::jupyterlab==4.0.11=py311hca03da5_0
  - defaults/osx-arm64::aiobotocore==2.5.0=py311hca03da5_0
  - defaults/osx-arm64::aext-panels==4.0.15=py311hca03da5_0
  - defaults/osx-arm64::typing-extensions==4.7.1=py311hca03da5_0
  - defaults/osx-arm64::aext-share-notebook-server==4.0.15=py311hca03da5_0
  - defaults/osx-arm64::aext-shared==4.0.15=py311hca03da5_0
  - defaults/osx-arm64::jupyter_server==2.14.1=py311hca03da5_0
  - defaults/osx-arm64::aext-panels-server==4.0.15=py311hca03da5_0
  - defaults/osx-arm64::aext-assistant==4.0.15=py311hca03da5_jl4_0
  - defaults/osx-arm64::scrapy==2.8.0=py311hca03da5_0
  - defaults/osx-arm64::panel==1.2.3=py311hca03da5_0
  - defaults/osx-arm64::holoviews==1.17.1=py311hca03da5_0
  - defaults/osx-arm64::aext-assistant-server==4.0.15=py311hca03da5_0
  - defaults/noarch::aioitertools==0.7.1=pyhd3eb1b0_0
  - defaults/osx-arm64::jupyter-lsp==2.2.0=py311hca03da5_0
  - defaults/osx-arm64::anaconda-toolbox==4.0.15=py311hca03da5_0
  - defaults/osx-arm64::jupyter==1.0.0=py311hca03da5_8
  - defaults/osx-arm64::anaconda-navigator==2.6.2=py311hca03da5_0
done


==> WARNING: A newer version of conda exists. <==
  current version: 23.7.4
  latest version: 24.7.1

Please update conda by running
```

```
    $ conda update -n base -c defaults conda

Or to minimize the number of packages updated during conda update use

     conda install conda=24.7.1



## Package Plan ##

  environment location: /Users/josephkambham/anaconda3

  added / updated specs:
    - pypdf2


The following packages will be downloaded:

    package                    |            build
    ---------------------------|-----------------
    annotated-types-0.6.0      |  py311hca03da5_0          27 KB
    pydantic-2.5.3             |  py311hca03da5_0         731 KB
    pydantic-core-2.14.6       |  py311hf0e4da2_0         1.6 MB
    pypdf2-2.10.5              |  py311hca03da5_0         500 KB
    typing-extensions-4.11.0   |  py311hca03da5_0          10 KB
    typing_extensions-4.11.0   |  py311hca03da5_0          75 KB
    ------------------------------------------------------------
                                           Total:         2.9 MB

The following NEW packages will be INSTALLED:

  annotated-types    pkgs/main/osx-arm64::annotated-types-0.6.0-py311hca03da5_0
  pydantic           pkgs/main/osx-arm64::pydantic-2.5.3-py311hca03da5_0
  pydantic-core      pkgs/main/osx-arm64::pydantic-core-2.14.6-py311hf0e4da2_0
  pypdf2             pkgs/main/osx-arm64::pypdf2-2.10.5-py311hca03da5_0
  typing_extensions  pkgs/main/osx-arm64::typing_extensions-4.11.0-py311hca03da5_0

The following packages will be UPDATED:

  typing-extensions                  4.7.1-py311hca03da5_0 --> 4.11.0-py311hca03da5_0



Downloading and Extracting Packages
typing_extensions-4. | 75 KB     |                                        |   0%
pydantic-core-2.14.6 | 1.6 MB    |                                        |   0%

annotated-types-0.6. | 27 KB     |                                        |   0%


typing-extensions-4. | 10 KB     |                                        |   0%



pypdf2-2.10.5        | 500 KB    |                                        |   0%




pydantic-2.5.3       | 731 KB    |                                        |   0%

typing_extensions-4. | 75 KB     | ###################################### | 100%
pydantic-core-2.14.6 | 1.6 MB    | 3                                      |   1%
```

```
annotated-types-0.6. | 27 KB     | ##################################### | 100%


typing-extensions-4. | 10 KB     | ##################################### | 100%


typing-extensions-4. | 10 KB     | ##################################### | 100%




pydantic-2.5.3       | 731 KB    | 8                                     |   2%
pydantic-core-2.14.6 | 1.6 MB    | ##########################9           |  73%





pydantic-2.5.3       | 731 KB    | ###################4                  |  52%
pydantic-core-2.14.6 | 1.6 MB    | ##################################### | 100%



pypdf2-2.10.5        | 500 KB    | #1                                    |   3%




pydantic-2.5.3       | 731 KB    | ##################################### | 100%



pypdf2-2.10.5        | 500 KB    | #######################6              |  64%
















Preparing transaction: done
Verifying transaction: done
Executing transaction: done

Note: you may need to restart the kernel to use updated packages.
```

In [1]:

```
!pip install pypdf2==2.12.1
```

```
Collecting pypdf2==2.12.1
  Obtaining dependency information for pypdf2==2.12.1 from https://files.pythonhosted.or
g/packages/2e/40/4f997b7cf72d89bb5aafd57b01dfa0be4e9560c8e5b993fde3986b3904f9/pypdf2-2.1
2.1-py3-none-any.whl.metadata
  Downloading pypdf2-2.12.1-py3-none-any.whl.metadata (6.6 kB)
Downloading pypdf2-2.12.1-py3-none-any.whl (222 kB)
   ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━ 222.8/222.8 kB 8.4 MB/s eta 0:00:00
Installing collected packages: pypdf2
  Attempting uninstall: pypdf2
    Found existing installation: PyPDF2 2.10.5
    Uninstalling PyPDF2-2.10.5:
      Successfully uninstalled PyPDF2-2.10.5
Successfully installed pypdf2-2.12.1
```

In [3]:

```
jupyter-nbconvert --to PDFviaHTML Aug_25th.ipynb
```

```
  Cell In[3], line 1
    jupyter-nbconvert --to PDFviaHTML Aug_25th.ipynb
                           ^
SyntaxError: invalid syntax
```

In [ ]:

```

```