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Session: 3

#Task 1: What is Miniconda? And the diffrences between Miniconda and Anaconda?

Sol

Both of them are software distributions that are widely used in data science to simplify package management and deployment.

Differences

There are essentially two main differences:

1. **Number of packages:** Anaconda comes with over 150 data science packages, whereas miniconda comes with only a handful.
2. **Interface:** Anaconda has a graphical user interface (GUI) called the Navigator, while miniconda has a command-line interface.

#TASK2: not clean code and turn it into clean

Sol

 # Not Clean

genyyyymmddhhmmss = datetime.strptime('04/27/95 07:14:22', '%m/**%d**/%y %H:%M:%S')
# Clean
generation_datetime = datetime.strptime('04/27/95 07:14:22', '%m/**%d**/%y %H:%M:%S'

//

```
# Not Clean
c = 5
d = 12
# Clean
city_counter = 5
elapsed_time_in_days = 12
```

#TASK3: What is framework? Uses? Pros? Cons?

Sol

A framework is a structure that you can build software on. It serves as a foundation, so you're not starting entirely from scratch. Frameworks are typically associated with a specific programming language and are suited to different types of tasks.

Why do we use frameworks?

Using frameworks saves time and reduces the risk of errors. You don't need to write everything from the ground up, so there's less chance of introducing errors. Plus, frameworks have already been tested, so there's less to worry about. Other advantages include:

_More secure code

_Simpler testing and debugging

_Avoiding duplicate code

_Clean and easily adaptable code

_Able to focus on writing code specific to the project

_Can be extended

#TASK4: Most popular 5 processors in laptops and 5 in mobiles?

Sol

Best mobile processors:

_Qualcomm Snapdragon

_Apple Mobile processors

_Intel Atom and Core M processors

_Nvidia Tegra

_MediaTek

Best laptop processors:

_INTEL CORE

_AMD RYZEN

#TASK5: How to make recursive code faster than iterative which doesn't support multi-threading?

Sol

#TASK6: what are hashtables ? Why do we use hash tables in unordered lists?

Sol

The Hash table data structure stores elements in key-value pairs where

- Key- unique integer that is used for indexing the values
- Value - data that are associated with keys.

#TASK7: how to print the error type for the user in try catch?

Sol

```
from traceback import print_exc

class CustomException(Exception): pass

try:
    raise CustomException("hi")
except Exception as e:
    print ('type is:', e._class.name_)
    print_exc()
    # print("exception happened!")
```