**1. To what does a relative path refer?**

* Relative path refers the path to the desired file or folder from the current working directory or folder

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**2. What does an absolute path start with your operating system?**

* In Linux based OS, absolute path starts with /
* In Windows based OS, absolute path starts with Drive Name (like C: or D:)

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**3. What do the functions os.getcwd() and os.chdir() do?**

* **os.getcwd() –** this function get the current working directory path
* **os.chdir()** – this function change the current working directory to the desired directory as specified
* **Note:** Need to import the OS package before using it. Like *import os*

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**4. What are the . and .. folders?**

* **. :** refers to the current working directory
* **.. :** refers to the immediate parent directory w.r.t current working directory

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**5. In C:\bacon\eggs\spam.txt, which part is the dir name, and which part is the base name?**

* Dir name: C:\bacon\eggs
* Base name: spam.txt
* *import os*

*path1 = r'C:\bacon\eggs\spam.txt'*

*print(os.path.dirname(path1))*

*print(os.path.basename(path1))*

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**6. What are the three “mode” arguments that can be passed to the open() function?**

* **Read –** to open the file in read mode
* **Write –** to open the file in write mode
* **Read/Write –** to open the file in read/write simultaneously
* **Syntax:** open(<file>, <mode>)
* **Other details:**
  + **‘r’ – Read Mode**: This is the default mode for open(). The file is opened and a pointer is positioned at the beginning of the file’s content.
  + **‘w’ – Write Mode**: This mode will overwrite any existing content in a file. If the given file does not exist, a new one will be created.
  + **‘r+’ – Read/Write Mode**: Use this mode if you need to simultaneously read and write to a file.
  + **‘a’ – Append Mode**: With this mode the user can append the data without overwriting any already existing data in the file.
  + **‘a+’ – Append and Read Mode**: In this mode you can read and append the data without overwriting the original file.
  + **‘x’ – Exclusive Creating Mode**: This mode is for the sole purpose of creating new files. Use this mode if you know the file to be written doesn’t exist.

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**7. What happens if an existing file is opened in write mode?**

* This mode will overwrite any existing content in a file. If the given file does not exist, a new one will be created.

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**8. How do you tell the difference between read() and readlines()?**

* **read():** this would consider each character in the file separately and iterate over it where the cursor points
* **readlines():** this would consider single line and iterate over it where the cursor points

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**9. What data structure does a shelf value resemble?**

* Shelf value resembles the dictionary data structure