Problem Statement Solution Submission

USING A PYTHON PROGRAM TO CREATE A LIST OF SOFTWARE APPLICATION DETAILS.

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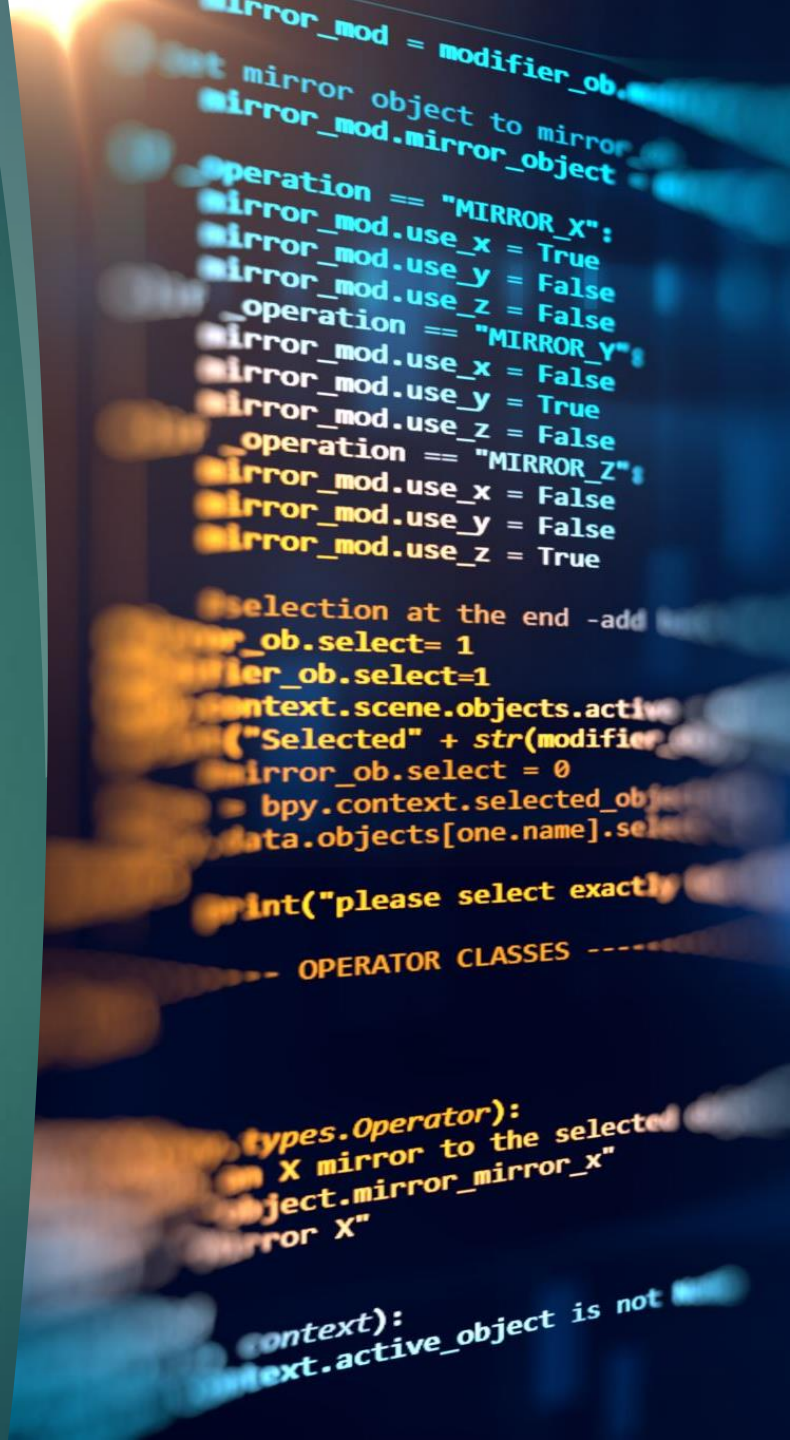
PROBLEM STATEMENT

- **Write a python program to create a list of software application details. The details of application include name, author, version, publishing year , price.**
- Perform the following with respect to the list of application created.
- a) Display all the details of application by a given author.
- b) Sort the details of application in the increasing order of price.
- c) Display the details of applications published by a given publisher in a given year.
- d) Sort the list of applications in the increasing order of two fields , author and publishing year of the books.

SOFTWARE USED

- Python Programming Language



ALGORITHM

- •STEP1 :Start
- •STEP2 :Initialize the dictionaries with corresponding variables
- •STEP3 : Get the input variables to perform the regarding operation
- •STEP4 :Write the displaying statement for choosing the required condition.
- •STEP5 :Under the 1st choice, the user input author name will be compared with the entered application.
- •STEP6 :With the help of if condition the application will be displayed if it is present

- STEP 7 : Under the 2nd choice, sorting process takes place to sort the cost of books.
- STEP 8 : In the choice 3 , the author name and the publishing year will be got as user input and then regarding details will be printed.
- STEP 9 : The author name will be got as input in the choice 4 and the regarding details will be printed.
- STEP 10 : In choice 5 , the program is set to exit.
- STEP 11 : Stop.

EXPLAINATION

STEP 1

- *Initially we are getting the limits as input .*
- *So they are declared in the first stage.*
- *In addition to that two variables i and j are assigned with values 0 and 1 respectively.*

STEP 2

- *Following the step 1, four choices are defined using nested if condition.*
- *And the conditions and their respective results are briefed in upcoming slides.*

STEP 3

- *In choice 1 , an input value(author's name) is taken.*
- *Then the input values are checked whether it is present in the respective no of libraries that are declared.*
- *If it is present in anyone then the corresponding book and the details will be displayed.*

STEP 4

- *In the choice 2 , the three libraries are assigned to three different variables.*
- *Those three variables are compared with another and if a condition is satisfied then the result under that will be received in the output.*
- *That is the output will be representing the cost of the books and would be sorted.*

STEP 5

- ✓ *Similar to the previous step in choice 3, three dictionaries(regarding publishing year of the book)are assigned to three variables used as before.*
- ✓ *In addition to that, we are getting author's name and publishing year of the book as inputs.*
- ✓ *Then those variables are verified under some if conditions and if it gets satisfied then the output will be received.*
- ✓ *The output that is received will be representing a book based on the author and the publishing year.*

STEP 6

- ✓ In choice 4 , the input mentioning the author name is taken.
- ✓ The dictionaries(representing publishing year of the book)are compared using if statement , followed by it the input variable is checked whether it is present in the library or not.
- ✓ Based on that result we will be getting an output representing book details in the increasing order based on the authors name and publishing year.

STEP 7

- Finally if none of the above conditions gets satisfied, this condition will get passed .
- That is the program will get ended and the input will be out of the loop

STEP 8

- *According to the program this might be considered as the last step but on the execution side this will be the first step to get executed.*
- *In this step we are using for loop in that the variable 'i' (assigned in the first step)is set in the range (0,n)*
- *Under that the inputs representing the author's name, book's name , version of the book, publishing year of the book, cost of the book (in same number of digits) and the dictionary number it belongs.*
- *All the above mentioned input details are assigned to variables.*
- *Under that some conditions are checked using if statements and by the result of that the output will be received.*

SAMPLE INPUT

```
Enter the limit:3
Enter The Author_name:jerome
Enter The Book_name:my life
Enter The Book_version:2
Enter The Pub_year:2006
Enter The Book_cost in same digits:500
Enter the dict number:1
Enter The Author_name:louis
Enter The Book_name:harry potter
Enter The Book_version:4
Enter The Pub_year:2008
Enter The Book_cost in same digits:700
Enter the dict number:2
Enter The Author_name:paul
Enter The Book_name:peaky blinders
Enter The Book_version:5
Enter The Pub_year:2010
Enter The Book_cost in same digits:900
Enter the dict number:3
```

SAMPLE OUTPUT (PART 1)

```
1. Enter Author Name
2. Enter Price
3. Enter Author Name and Year of Publishing
4.Enter Author Name,Publishing Year for listing
5.To Exit
Enter the choice:1
Enter the Author Name:jerome
{'Book_cost': '500', 'Author_name': 'jerome', 'Book_version': '2', 'Pub_year': '2006', 'Book_name': 'my life'}
Enter the choice:2
c3:900
b3:700
{'Book_cost': '500', 'Author_name': 'jerome', 'Book_version': '2', 'Pub_year': '2006', 'Book_name': 'my life'}
{'Book_cost': '700', 'Author_name': 'louis', 'Book_version': '4', 'Pub_year': '2008', 'Book_name': 'harry potter'}
{'Book_cost': '900', 'Author_name': 'paul', 'Book_version': '5', 'Pub_year': '2010', 'Book_name': 'peaky blinders'}
Enter the choice:3
Enter The Author Name:louis
Enter The Publishing Year:2008
{'Book_cost': '700', 'Author_name': 'louis', 'Book_version': '4', 'Pub_year': '2008', 'Book_name': 'harry potter'}
```

OUTPUT (PART 2)

```
Enter the choice:4
Enter the Author Name:jerome
{'Author_name': 'jerome', 'Book_name': 'my life', 'Book_version': '2', 'Pub_year': '2006', 'Book_cost': '500'}
Enter the choice:5


Process finished with exit code 0
```

THANK YOU