PROBLEM STATEMENT SOLUTION SUBMISSION

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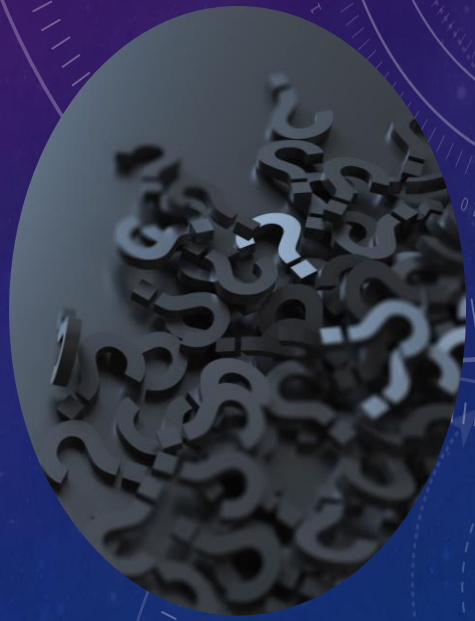
USING A PYTHON PROGRAM

TO CREATE A

LIST OF SOFTWARE

APPLICATION DETAILS.



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CONTENT

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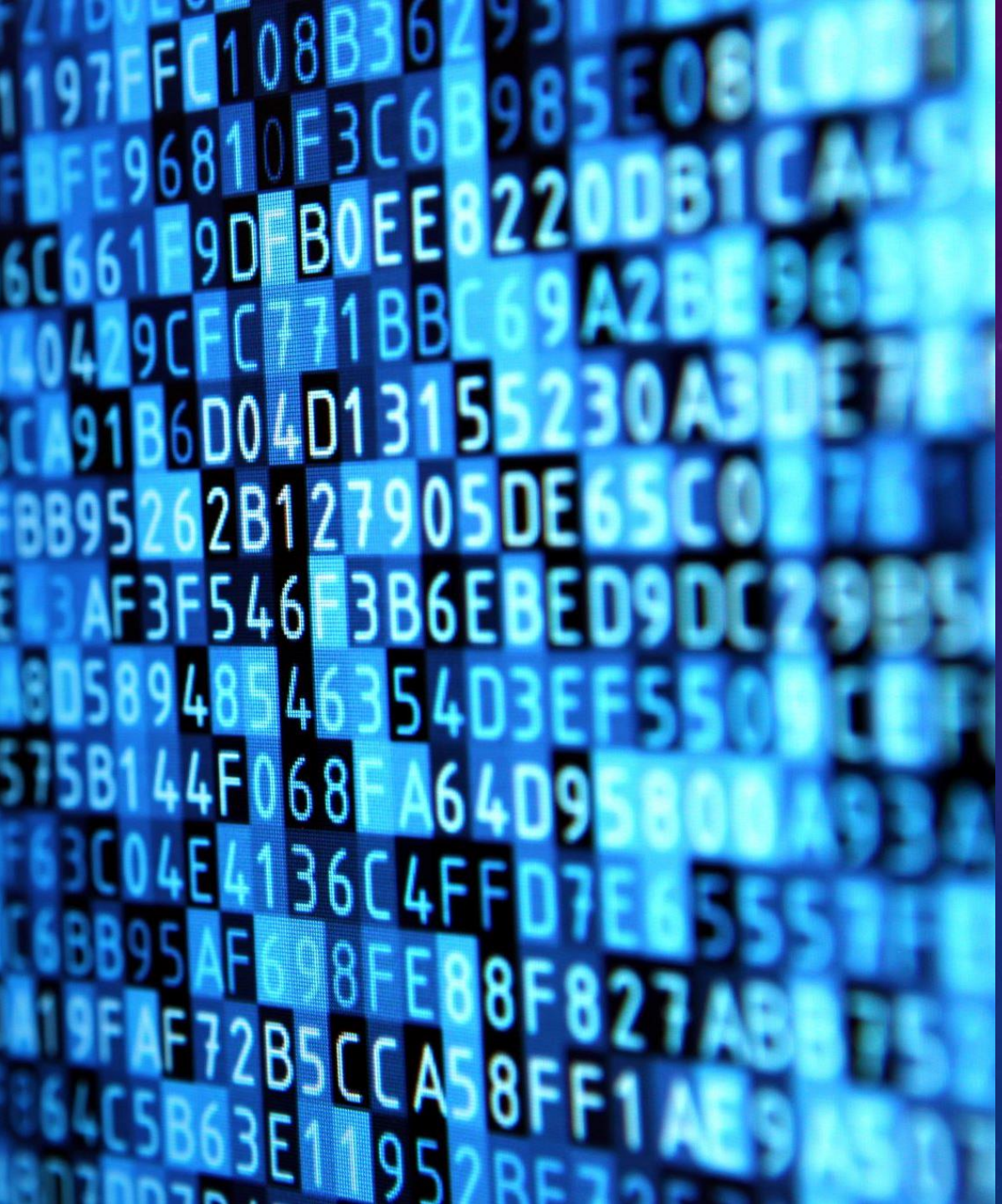
PROBLEM STATEMENT

- 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

- •STEP 1 :Start
- •STEP 2 : Get the input variables to perform the regarding operation
- •STEP 3 :Write the displaying statement for choosing the required condition.
- •STEP 4 :Under the 1st choice, the user input author name will be compared with the entered application.
- STEP 5: Under the 2nd choice, sorting process takes place to sort the cost of books.

- STEP 6: 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 7: The author name will be got as input in the choice 4 and the regarding details will be printed.
- STEP 8 : In choice 5 , the program will be exit.
- STEP 9 : Stop.

EXPLAINATION

STEP 1

- *Initialize the three variable I, j and k are assigned with values 0, 1 and 1 respectively.*

STEP 2

Get the input and store the list of inputs in the corresponding lists

```
i = 0
j = 1
k = 1
input1_string = input('Enter the Author names separated by space: ')
input2_string = input('Enter the Books name separated by space :')
input3_string = input('Enter the Books version separated by space:')
input4_string = input('Enter the Pulished year of the books separated by space: ')
input5_string = input('Enter the Costs of the Book separated by space:')
print("\n")
Author_name = input1_string.split()
Book_name = input2_string.split()
Book_version = input3_string.split()
Published_year = input4_string.split()
a = input4_string.split()
Book_cost = input5_string.split()
b = input5_string.split()
```

STEP 3

The statement Will **display the Required Condition**

```
print(
    "Enter 1 to Display all the details of application by a given author\n"
    "Enter 2 to Sort the details of application in the increasing order "
    "of price\n"
    "Enter 3 to Display the details of applications published by a given"
    " publisher in a given year\n"
    "Enter 4 to Sort the list of applications in the increasing order of "
    "two fields , author and publishing year of the books\n"
    "Enter 5 to Exit")
```

STEP 4

In choice 1 , author's name is
taken as the input. It'll display the details of the book if it is present in the list. Otherwise it'll show no books are available.

```
if choice == 1:
    j = 1
    f = input('Enter the author name:')
    for i in range(0, len(Author_name)):
        if f == Author_name[i]:
            print('Author_name:' + Author_name[i] + ',Book_name:' + Book_name[
                i] + ',Book_version:' + Book_version[i] + ',Published_year:' +
                    Published_year[i] + ',Book_cost:' + Book_cost[i])
            j = 0
        elif j == 1 and i == len(Author_name) - 1:
            print("No Books available...")
```

STEP 5

In the choice 2 , it'll display
The details of the book in the increasing order of price.

```
if choice == 2:
    for i in range(0, len(Book_cost)):
        Book_cost[i] = int(Book_cost[i])
        b[i] = int(b[i])
    for i in range(0, len(Book_cost)):
        for j in range(i + 1, len(Book_cost)):
            if b[i] > b[j]:
                temp = b[i]
                b[i] = b[j]
                b[j] = temp
    for i in range(0, len(Book_cost)):
        for j in range(0, len(Book_cost)):
            if b[i] == Book_cost[j]:
                print('Author_name:' + Author_name[j] + ',Book_name:' + Book_name[
                    j] + ',Book_version:' + Book_version[j] + ',Published_year:' +
                      Published_year[j]+'\nBook_cost:' )
                print( Book_cost[j])
```

STEP 6

In the choice 3 , an input value of author's name and the published year of the book is taken and then it'll display the corresponding books details if it is present in the list otherwise, it'll display no books are available

```
if choice == 3:
    m = 1
    f = input("Enter the Author name:")
    y = input("Enter the Published year of the book:")
    for i in range(0, len(Author_name)):
        if f == Author_name[i]:
            if y == Published_year[i]:
                print('Author_name:' + Author_name[i] + ',Book_name:' + Book_name[
                    i] + ',Book_version:' + Book_version[i] + ',Published_year:' +
                      Published_year[i] + ',Book_cost:' + Book_cost[i])
                m = 0
        elif m == 1 and i == len(Author_name):
            print("No Books available...")
```

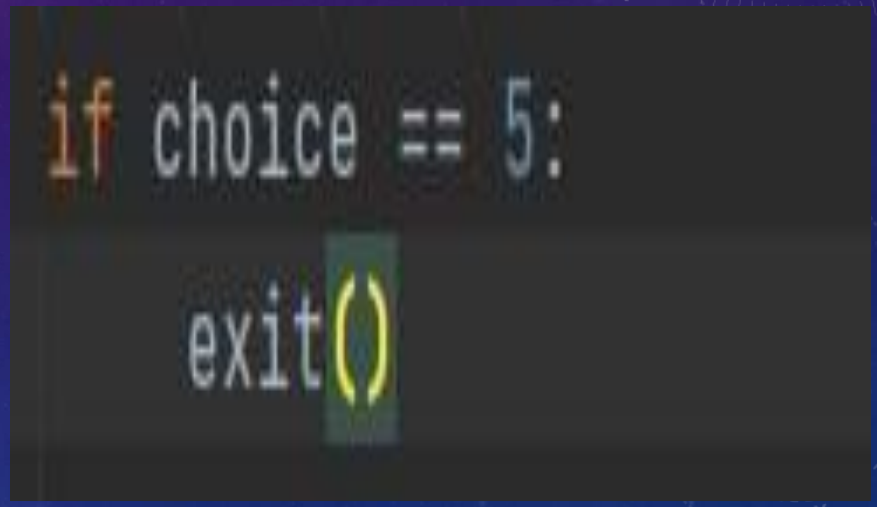
STEP 7

In choice 4 , an input of author name is taken . It'll check whether it is present in the corresponding list according to that it'll display the book details in the increasing order of published year of the book. Otherwise it'll *show no books are available*

```
if choice == 4:
    m = 1
    f = input("Enter the Author Name:")
    for i in range(0, len(Published_year)):
        for j in range(i + 1, len(Published_year)):
            if a[i] > a[j]:
                temp = a[i]
                a[i] = a[j]
                a[j] = temp
    for i in range(0, len(Published_year)):
        for j in range(0, len(Published_year)):
            if a[i] == Published_year[j]:
                if f == Author_name[j]:
                    print('Author_name:' + Author_name[j] + ',Book_name:' + Book_name[
                        j] + ',Book_version:' + Book_version[j] + ',Published_year:' +
                          Published_year[j] + ',Book_cost:' + Book_cost[j])
                    m = 0
            elif m == 1 and i == len(Published_year):
                print("No Books available...")
```

STEP 8

- If the choice is 5 , it'll exit the program.



SAMPLE INPUT

```
Enter the Author names separated by space:
 Lewis Charles Faulkner Shakespeare
Enter the Books name separated by space :
Miracles Chimes Sanctuary Hamlet
Enter the Books version separated by space:
4 6 8 11
Enter the Pulished year of the books separated by space:
 1947 1844 1931 1609
Enter the Costs of the Book separated by space:
3000 4000 2000 5000
```

SAMPLE OUTPUT

```
Enter 1 to Display all the details of application by a given author
Enter 2 to Sort the details of application in the increasing order of price
Enter 3 to Display the details of applications published by a given publisher in a given year
Enter 4 to Sort the list of applications in the increasing order of two fields , author and publishing year of the books
Enter 5 to Exit
Enter the choice:1
Enter the author name:Lewis
Author_name:Lewis,Book_name:Miracles,Book_version:4,Published_year:1947,Book_cost:3000
Enter the choice:2
Author_name:Faulkner,Book_name:Sanctuary,Book_version:8,Published_year:1931
Book_cost:
2000
Author_name:Lewis,Book_name:Miracles,Book_version:4,Published_year:1947
Book_cost:
3000
Author_name:Charles,Book_name:Chimes,Book_version:6,Published_year:1844
Book_cost:
4000
Author_name:Shakespeare,Book_name:Hamlet,Book_version:11,Published_year:1609
Book_cost:
5000
Enter the choice:3
Enter the Author name:Charles
Enter the Published year of the book:1844
Author_name:Charles,Book_name:Chimes,Book_version:6,Published_year:1844,Book_cost:4000
Enter the choice:4
Enter the Author Name:Faulkner
Author_name:Faulkner,Book_name:Sanctuary,Book_version:8,Published_year:1931,Book_cost:2000
Enter the choice:5

Process finished with exit code 0
```

THANK YOU