Installation and configure Google App Engine.

Q. Installation and configure Google App Engine and Implement Binary Search using any programming language

Stps :

1. **Login** to your google account
2. Search **console.cloud.google.com** in browser
3. Click on **Select Project**
4. Click on **New Project**
5. Give **Project Name** (Here LP2)
6. Click on **Create**
7. Click on **Select Project**
8. In search bar, type **App Engine**
9. Click on **App Engine** (Welcome screen will appear)
10. Click on **Create Application**
11. Click on **next**
12. Click on **I will do it later**
13. In search bar, type **App Engine admin API**
14. Click on **App Engine admin API**
15. Click **Enable**
16. Click on **Activate Cloud Shell** (Near Search Bar)
17. Click on **Continue**
18. **Login** to github
19. **Create New Repository** with name 'LP2'
20. Create a new file by Clicking on **Creating a New File**
21. Give any name to Python File (Here **BinarySearch.py**)
22. **Type your Code :**

```
# Python 3 program for recursive binary search.
# Returns index of x in arr if present, else -1
def binary_search(arr, low, high, x):

    # Check base case
    if high >= low:

        mid = (high + low) // 2
```

```
                # If element is present at the middle itself
                if arr[mid] == x:
                        return mid

                # If element is smaller than mid, then it can only
                # be present in left subarray
                elif arr[mid] > x:
                        return binary_search(arr, low, mid - 1, x)

                # Else the element can only be present in right subarray
                else:
                        return binary_search(arr, mid + 1, high, x)

        else:
                # Element is not present in the array
                return -1

# Test array
arr = [ 2, 3, 4, 10, 40 ]
x = 10

# Function call
result = binary_search(arr, 0, len(arr)-1, x)

if result != -1:
        print("Element is present at index", str(result))
else:
        print("Element is not present in array")
```

23. Click on **Commit Changes**
24. Click on **Code** and **copy URL** (here https://github.com/SagarSharma1702/LP2.git)
25. Goto Cloud Platform and type
    '**git clone https://github.com/SagarSharma1702/LP2.git**' in Cloud Shell
26. Type **ls** (Repository Name will be Visible)
27. Enter using command **cd {Repository name}** (here LP2)
28. Type **ls** (Python File will be visible)

29. Type **python {file name (here BinarySearch.py)}**

30. Output will be visible