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 AP**I
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")

1. Click on **Commit Changes**
2. Click on **Code** and **copy URL** (here <https://github.com/SagarSharma1702/LP2.git>)
3. Goto Cloud Platform and type

‘**git clone** [**https://github.com/SagarSharma1702/LP2.git**](https://github.com/SagarSharma1702/LP2.git)‘ in Cloud Shell

1. Type **ls** (Repository Name will be Visible)
2. Enter using command **cd {Repository name}** (here LP2)
3. Type **ls** (Python File will be visible)
4. Type **python {file name (here BinarySearch.py)}**
5. **Output will be visible**