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HDFC_LIFE-Java Full Stack_B1

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1.The below mentioned points are CRS (Customer Requirement Specification)

- Customer secured entry
- Search the products needed
- Need to add that into my favorites
- Selected products need to deliver to the customer

For the above-mentioned CRS, first you need to create SRS/FS and write the producers using V-model.

ANS. =>

Srs(software requirement specification):it is nothing but a detail documentation of system purpose mean what is the main purpose to develop the software and many more things related to the software like how it gonna perfom and all.

Type of requirements :

Functional

Performance

Interface

Maintainability

Reliability

Safety

Quality

Operational

Resource

So this are the requirement in software requirement specification

**2.List out any 7 functions of git with examples (it should include push and pull functions as well).**

ANS. =>

**Git: it is an open source version control software, which is used for the project handling and also for tracking the changes done in the project.**

**There are some git function which are as followed:**

**1. git status**

**This command will show the modified status of an existing file and the file addition status of a new file, if any file is left that has to be committed or is untracked.**

**Example:git status**

**2.git add: this is a git command which used to add the untracked file at the staged area so that by commit the change we can push the staged file into the remote site;**

**Cmd: git add <filename>**

**Example:**

**git add mohit.java**

**3.git commit : This command records or snapshots files permanently in the version history. All the files, which are there in the directory right now, are being saved in the Git file system.**

**Cmd: git commit -m ”message”**

**Example:**

**git commit -m “add”**

**4.git branch: this command is used for listing the all brands available in the repo. And also tells us on which branch we currently working**

**Cmd:git branch**

**Example git branch**

**5.git checkout: this command is used to shift from one branch to another branch**

**Cmd: git checkout <branch name>**

**Example: git checkout sub_branch**

**6. git push: it is a git command which is used to push the files or whatever the changes are done in the local repo. to the remote repo .**

**Cmd: git push origin <branch name>**

**Example: git push origin master**

**7.git pull: The git pull command first runs ‘git fetch’ which downloads the content from the specified remote repository and then immediately updates the local repo to match the content.**

**Cmd:** git pull origin <branch name>

Example: git pull origin master

**4.Write an algorithm for quick sorting using arrays.**

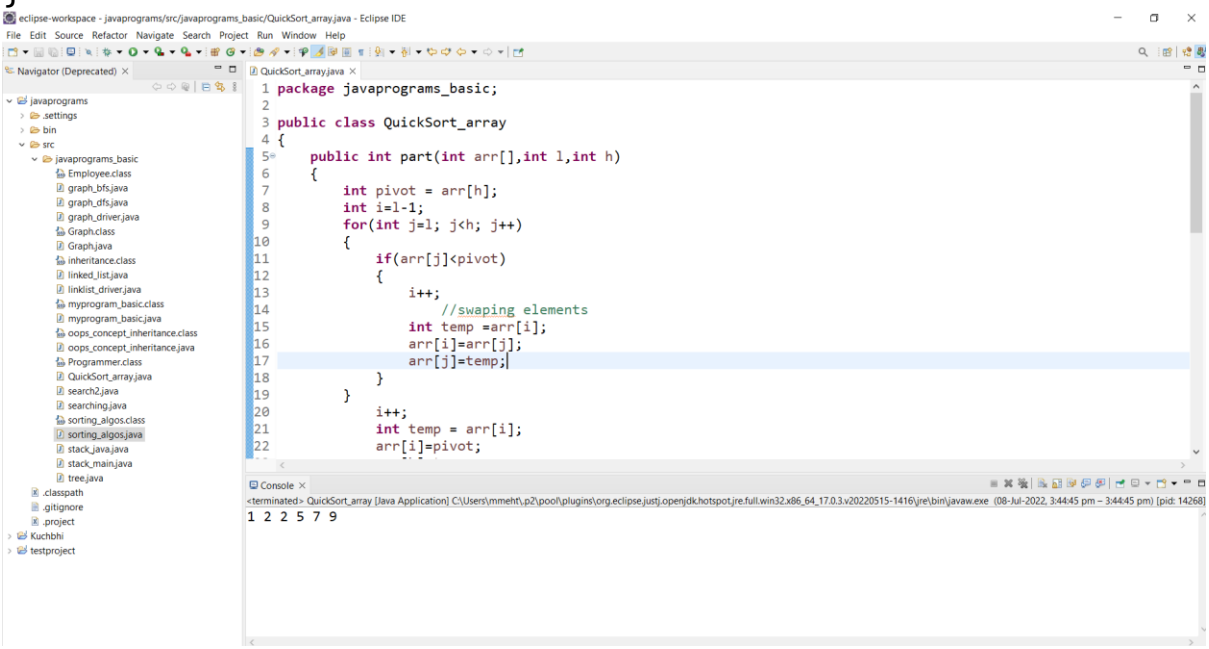
ANS. =>

```
public class QuickSort_array
{
     public int part(int arr[],int l,int h)
     {
          int pivot = arr[h];
```

```
        int i=l-1;
        for(int j=l; j<h; j++)
        {
            if(arr[j]<pivot)
            {
                i++;
                    //swaping elements
                int temp =arr[i];
                arr[i]=arr[j];
                arr[j]=temp;
            }
        }
            i++;
            int temp = arr[i];
            arr[i]=pivot;
            arr[h]=temp;
            return i; //pivot index
    }
    public void sort(int arr[],int l,int h)
    {
        QuickSort_array qs =new QuickSort_array();
        if(l<h)
        {
            int p=qs.part(arr ,l,h);
            sort(arr,l,p-1);
            sort(arr,p+1,h);
        }
    }
    //printing sorted array
    public void printsort(int arr[])
    {
        int n=arr.length;
        for(int i=0;i<n;i++)
        {
            System.out.print(arr[i]+" ");
        }
        System.out.println();
    }
    public static void main(String[] args)
    {
        QuickSort_array qs =new QuickSort_array();
        int[] arr= {1,2,9,5,2,7};
```

```
        int n=arr.length;
        qs.sort(arr, 0, n-1);
        qs.printsort(arr);

    }
}
```




## 5.Implement the Stack using linked list concept with an example.

ANS. =>

```
package javaprograms_basic;

public class Stack_Linked
{
    static class node
    {
        int data;
        node next;
        public node(int data)
        {
            this.data=data;
            next=null;
        }
    }
```

```
static class stack
{
     public static node head;
     public static boolean isEmpty()
     {
          return head==null;
     }
     public static void push(int data)
     {
          node newNode =new node(data);
          if(isEmpty())
          {
               head=newNode;
               return;
          }
          newNode.next=head;
          head=newNode;
     }

     public static int pop()
     {
          if(isEmpty())
          {
               System.out.println("empty");
               return -1;
          }
          int top =head.data;
          head=head.next;
          return top;
     }
     public static int peak()
     {
          if(isEmpty())
          {
               System.out.println("empty");
               return -1;
          }
          return head.data;
     }
}
public void printstack()
```

```
    {
        stack s =new stack();
        while(s.head!=null)
        {
            System.out.println(s.peak());
            s.pop();
        }
    }
    public static void main(String[] args)
    {
        stack s =new stack();
        Stack_Linked sl=new Stack_Linked();
        s.push(1);
        s.push(2);
        s.push(3);
        s.push(4);
        s.push(5);
        sl.printstack();
    }
}
```