Git Commands

sudo apt install git

git init

git ls -a

git status

git add .

git status

git commit -m "commit1"

git config --global user.name “sowjanya”

git config --global user.email “sowjanya@gmail.com”

git remote add origin https://github.com/sowjanya/samplerepo.git

git push origin master

git pull "url"

git clone "url

REGISTRATION FORM

```
<form>
  <h2>Student Registration Form</h2>

  <label>Full Name:</label><br>
  <input type="text" name="fullname"><br><br>

  <label>Gender:</label><br>
  <input type="radio" name="gender" value="Male"> Male
  <input type="radio" name="gender" value="Female"> Female
  <input type="radio" name="gender" value="Other"> Other<br><br>

  <label>Date of Birth:</label><br>
  <input type="date" name="dob"><br><br>

  <label>Age:</label><br>
  <input type="number" name="age"><br><br>

  <label>Contact Number:</label><br>
  <input type="tel" name="contact"><br><br>

  <label>Email:</label><br>
  <input type="email" name="email"><br><br>

  <label>Address:</label><br>
  <textarea name="address"></textarea><br><br>

  <label>Course Applying For:</label><br>
  <input type="text" name="course"><br><br>

  <label>Qualification:</label><br>
  <input type="text" name="qualification"><br><br>

  <label>School/College Name:</label><br>
  <input type="text" name="school"><br><br>

  <label>Guardian’s Name:</label><br>
  <input type="text" name="guardian"><br><br>

  <label>Guardian’s Contact Number:</label><br>
  <input type="tel" name="guardian_contact"><br><br>

  <input type="submit" value="Register">
</form>
```

Arithmetic Operations

```
public class ArithmeticOperations {
    public static void main(String[] args) {
        int num1 = 10;
        int num2 = 3;
        int sum = num1 + num2;
        int difference = num1 - num2;
        int product = num1 * num2;
        if (num2 != 0) {
            int quotient = num1 / num2;
            int remainder = num1 % num2;
            System.out.println("Addition: " + sum);
            System.out.println("Subtraction: " + difference);
            System.out.println("Multiplication: " + product);
            System.out.println("Division: " + quotient);
            System.out.println("Modulus: " + remainder);
        } else {
            System.out.println("Division and modulus by zero is not allowed.");
        }
    }
}
```

Sum and Avg

```
public class SumAvg {
public static void main(String[] args) {
   int sum = 0;
   for(int i = 1; i <= 10; i++) sum += i;
   double avg = sum / 10.0;
   System.out.println("Sum: " + sum + ", Average: " +avg);
   }
}
```

Student Details

```
public class StudentDetails {
    public static void main(String[] args) {
        String name = "abc";
        int rollNo = 101;
        String department = "Computer Science";

        System.out.println("Student Name: " + name);
        System.out.println("Roll Number: " + rollNo);
        System.out.println("Department: " + department);
    }
}
```

Change of background colour

```
<html>
<head>
<script language="javascript">
function change(col)
{
switch(col)
{
case 'red':document.bgColor="red";
            break;

case 'green':document.bgColor="green";
            break;
 case 'blue':document.bgColor="blue";
            break;
 }
 }
 </script>
 </head>
 <body>
 <h1><input type="radio" name="c" onClick="change('red')"> RED</h1>
 <h1><input type="radio" name="c"  onClick="change('green')"> GREEN</h1>
 <h1><input type="radio" name="c" onClick="change('blue')"> BLUE<h1>
 </body>
 </html>
```

Login Form Validation (JavaScript)

```
<form onsubmit="return validateForm()">
<input type="text" id="username" placeholder="Username"><br>
<input type="password" id="password" placeholder="Password"><br>
<input type="submit" value="Login">
</form>
<script>
function validateForm() {
let user = document.getElementById("username").value;
let pass = document.getElementById("password").value;
if(user == "" || pass == "") {
alert("All fields are required!");
return false;
}
return true;
}
</script>
```

Python programs

Student Details

```
print("Name: John")
print("Rno: 123")
print("Dept: CSE")
```

Sum and Average

```
total = sum(range(1,11))
average = total / 10
print("Sum:",total,"Average:", average)
```

Arithmetic Operations

```
a= 10
b = 3
sum = a + b
difference = a - b
product = a * b
quotient = a / b
modulus = a% b
print("Addition:", sum)
print("Subtraction:", difference)
print("Multiplication:", product)
print("Division:", quotient)
print("Modulus:", modulus)
```

DOCKER INSTALLATION

$ sudo apt-get update
$ sudo apt-get install docker.io
$ docker –version
$ docker pull hello-world
$ docker run hello-world

DOCKER JAVA

```
$ sudo su
$ mkdir JavaDemo
$ cd JavaDemo
$ vi Hello.java
```

Vi Dockerfile

```
FROM openjdk:11
WORKDIR /app
COPY ./Hello.java .
RUN javac Hello.java
CMD ["java", "Hello"]
```

```
$ docker build –t javaimage .
$ docker run -it javaimage
$ docker login -u sowjanyajindam
$ docker tag javaimage sowjanyajindam/javaimage
$ docker push sowjanyajindam/javaimage
$ docker pull sowjanyajindam/ javaimage
$ docker run -it sowjanyajindam/ javaimage
```

DOCKER HTML

$ sudo su
$ mkdir htmlDemo
$ cd htmlDemo
$ vi Hello.html

$vi header.html

vi Dockerfile

```
FROM nginx:latest
WORKDIR /usr/share/nginx/html
COPY ./index.html .
EXPOSE 80
```

$ docker build –t htmlimage .
$ docker run -it htmlimage
$ docker login -u sowjanyajindam
$ docker tag htmlimage sowjanyajindam/htmlimage
$ docker push sowjanyajindam/htmlimage
$ docker pull sowjanyajindam/ htmlimage
$ docker run -d -p 8085:80 sowjanyajindam/ htmlimage

DOCKER PYTHON

$ sudo su
$ mkdir pythonDemo
$ cd pythonDemo
$ vi Hello.py

Vi Dockerfile

```
FROM openjdk:11
WORKDIR /app
COPY ./Hello.java .
RUN javac Hello.java
CMD ["java", "Hello"]
```

$ docker build –t pythonimage .
$ docker run -it pythonimage
$ docker login -u sowjanyajindam
$ docker tag javaimage sowjanyajindam/pythonimage
$ docker push sowjanyajindam/pythonimage
$ docker pull sowjanyajindam/ pythonimage
$ docker run -it sowjanyajindam/ pythonimage

SELENIUM IDE

Installing IDE:

Step 1- Open the Firefox browser
Step 2- Click on the menu in the top right corner
Step 3- Click on Add-ons in the drop-down box.
Step 4- Click on Find more add-ons and type “Selenium IDE”
Step 5- Click on Add to Firefox

Simple js program

```
$ mkdir googleDemo
$ cd googleDemo
```

vi app.js

```
const {Builder, By, Key} = require("selenium-webdriver");
async function example(){
 let driver = await new Builder().forBrowser("chrome").build();
 await driver.get("https://www.google.com/");
 console.log("browser opened");
 await driver.quit();
}
example()
```

Execution Steps for Selenium:

- node -v

// check whether node is installed. If not, install using below commands.
// sudo apt-get update
//sudo apt install nodejs

- npm -v

// check whether npm is installed. If not, install using below commands.
//sudo apt install npm

- npm init // Initilaze the node package
- npm install selenium-webdriver // add selenium web driver as dependency
- npm init //check out for addition of selenium dependency
- node app.js //execute the program

Login Form

vi login.html

```
<html>
<head>
<title> Login Page</title>
<script language="javascript">
function validate()
{
var u=document.f1.u.value;
var p=document.f1.p.value;
if(u=="MVSREC" && p=="ITD")
{
window.open("loginsuccess.html");
}
else
{
window.open("loginfail.html");
}
}
</script>
</head>
<body>
<form name="f1">
<h1 align="center" style="color:blue">Login Page</h1>
<table align="center" bgcolor="pink">
<tr>
 <td>UserId</td>
 <td><input type="text" name="u" id="un"></td>
</tr>
<tr>
 <td>Password</td>
 <td><input type="password" name="p" id="pw"></td>
</tr>
<tr>
 <td><input type="button" value="Signin" id="s"
 onclick="validate()"></td>
 <td><input type="reset" value="Reset id="r"></td>
</tr>
</table>
</form>
</body>
</html>
```

vi loginsucess.html

```
<html>
<head>
<title> Success </title>
</head>
<body>
<h1 align="center" style="color:red"> Login Succeess</h1>
</body>
</html>
```

vi loginfail.html

```
<html>
<head>
<title> Fail </title>
</head>
<body>
<h1 align="center" style="color:red"> Login Failed</h1>
</body>
</html>
```

vi mylogin.js

```
const { Builder, By, until } = require("selenium-webdriver");
const assert = require("assert");
async function loginTest() {
 // launch the browser
let driver = await new Builder().forBrowser("chrome").build();
 try {
await driver.get("file:///home/mvsr/myloginDemo/login.html");
await driver.findElement(By.id("un")).sendKeys("MVSREC");
await driver.findElement(By.id("pw")).sendKeys("ITD");
await driver.findElement(By.id("s")).click();
const title = await driver.getTitle();
 assert.strictEqual(title,"Login Page");
 console.log("success");
 } finally {
 await driver.quit();
 }
}
loginTest();
```

Results

vi collegelogin.js

```
const { Builder, By, until } = require("selenium-webdriver");
const assert = require("assert");
async function loginTest() {
 // launch the browser
 let driver = await new Builder().forBrowser("chrome").build();
 try {
 await driver.get("http://results.mvsrec.edu.in/SBLogin.aspx");
 await driver.findElement(By.id("txtUserName")).sendKeys("245121737129");
 await driver.findElement(By.id("txtPassword")).sendKeys("245121737129");
 await driver.findElement(By.id("btnSubmit")).click();
 const user = await driver.findElement(By.id("lblHTNo")).getText();
 assert.strictEqual(user, "245121737129");
 console.log("success");
 await driver.findElement(By.id("Stud_cpModules_imgbtnExams")).click();
 await driver.findElement(By.id("cpBody_lnkSem")).click();
 const ur = await driver.getCurrentUrl();
 assert.strictEqual(ur,
"http://results.mvsrec.edu.in/STUDENTLOGIN/Frm_SemwiseStudMarks.aspx");
 console.log("Display marks success");
 }
finally {
 await driver.quit();
 }
}
loginTest();
```