SLIP-1

Q1> Write a Java Program to implement I/O Decorator for converting uppercase letters to

lower case letters.

=>

import java.io.\*;

import java.util.\*;

class LowerCaseInputStream extends FilterInputStream

{

public LowerCaseInputStream(InputStream in) {

super(in);

}

public int read() throws IOException {

int c = super.read();

return (c == -1 ? c : Character.toLowerCase((char)c));

}

public int read(byte[] b, int offset, int len) throws IOException {

int result = super.read(b, offset, len);

for (int i = offset; i < offset+result; i++) {

b[i] = (byte)Character.toLowerCase((char)b[i]);

}

return result;

}

}

public class Main {

public static void main(String[] args) throws IOException {

int c;

try {

InputStream in =

new LowerCaseInputStream(

new BufferedInputStream(

new FileInputStream("test.txt")));

while((c = in.read()) >= 0) {

System.out.print((char)c);

}

in.close();

} catch (IOException e) {

e.printStackTrace();

}

}

}

Q2> Write a Python program to prepare Scatter Plot for Iris Dataset

=>

import numpy as np

import pandas as pd

import matplotlib.pyplot as plt

data=pd.read\_csv("iris.csv")

print(data)

x=data["SepalLengthCm"]

y=data["SepalWidthCm"]

print(x)

print(y)

plt.scatter(x,y,c="red")

plt.title("IRIS CSV")

plt.xlabel("SepalLengthCm")

plt.ylabel("SepalWidthCm")

plt.show()

Import Libraries: pip install numpy

pip install pandas

pip install matplotlib

Q3> Create an HTML form that contain the Student Registration details and write a JavaScript to validate Student first and last name as it should not contain other than alphabets and age should be between 18 to 50.

=>

<html>

<head>

<title>

Registration Form

</title>

<script>

function f()

{

var fname=document.myform.fname.value;

var lname=document.myform.lname.value;

var age=document.myform.age.value;

if(!(/[a-zA-Z]+/).test(fname))

{

alert("please enter valid first name");

return false;

}

if(!(/[a-zA-Z]+/).test(lname))

{

alert("please enter valid last name");

return false;

}

if(isNaN(age)||age<18||age>60)

{

alert("please enter age between 18 to 60");

return false;

}

}

</script>

</head>

<body>

<form name="myform" onsubmit="f()">

fname<input type="text" name="fname"><br><br>

lname<input type="text" name="lname"><br><br>

age<input type="text" name="age" ><br><br>

<input type="submit" value="submit">

</form>

</body>

</html>