**Iterative statements**

**1.while loop**

**2.for loop**

**While(condition)**

**{**

**body**

**}**

**for(initialization;condition check;increment/decrement)**

**{**

**}**

**Ex1:**

**var count=1**

**while(count<=10)**

**{**

**console.log(count)**

**count++**

**}**

**Ex2: var s="pentagon space"**

**var i=0**

**while(i<s.length)**

**{**

**console.log(s[i])**

**i++**

**}**

**Ex3:To print all numbers that are divisible by 2 and 5 between 5 to 100**

**var n=5**

**while(n<=100)**

**{**

**if(n%2==0 && n%5==0)**

**{**

**console.log(n)**

**}**

**n++**

**}**

**Ex4:**

**var name=prompt("Enter ur fav subject")**

**while(name!="python")**

**{**

**name=prompt("Enter ur fav subject")**

**}**

**alert("Thank u for choosing python as ur fav subject")**

**----------------------**

**<html>**

**<head>**

**<script>**

**for(var i=0;i<=10;i++)**

**{**

**console.log("javascript")**

**}**

**i=0, 0<=10-->true ,enter the for loop==>javascript**

**i=1,1<=10--->true,enter the for loop==>javascript**

**i=2,2<=10-->true,enter the for loop==>javascript**

**...**

**i=10,10<=10-->true,enter the for loop==>javascript**

**------------------------------------------------**

**i=11,11<=10-->false**

**for(var i=1;i<=100;i++)**

**{**

**if(i%2==0)**

**{**

**console.log(i)**

**}**

**}**

**Write a program that satisfies the following conditions:**

**1.The first char of name should be ‘s’**

**2.The last char of fav bike should be ‘e’**

**3.The lucky number should be 7**

**4.The length of dish should be >=7**

**<html>**

**<head>**

**<script>**

**var name=prompt("Enter your name")**

**var bike=prompt("Enter your fav bike")**

**var num=Number(prompt("Enter your lucky number"))**

**var dish=prompt("Enter a dish")**

**var nameflag=false**

**var bikeflag=false**

**var numflag=false**

**var dishflag=false**

**if(name[0]=='s')**

**{**

**nameflag=true**

**}**

**if(bike[bike.length-1]=='e')**

**{**

**bikeflag=true**

**}**

**if(num==7)**

**{**

**numflag=true**

**}**

**if(dish.length>=7)**

**{**

**dishflag=true**

**}**

**alert("Hello:"+name+"\n Thank you for ur information")**

**if(nameflag && bikeflag && numflag && dishflag)**

**{**

**console.log("welcome to our soldier group")**

**}**

**else**

**{**

**console.log("you are an outsider")**

**}**

**</script>**

**</head>**

**<body>**

**</html>**

**Functions in Javascript**

**function fun\_name(arguments)**

**{**

**body**

**Return val**

**}**

**function wish()**

**{**

**alert("Hello good nite")**

**}**

**wish()**

**wish()**

**<script>**

**function wish(name)**

**{**

**alert("Hello"+" "+name+" "+"good nite")**

**}**

**n=prompt("Enter a name")**

**wish(n)**

**===================================================================**

**Default args:**

**function wish(name="friend")**

**{**

**alert("Hello"+" "+name+" "+"good nite")**

**}**

**wish("shreenath")**

**wish()**

**function add(x,y)**

**{**

**z=x+y**

**return z**

**}**

**sum=add(100,200)**

**alert("sum="+sum)**

**function fun(s)**

**{**

**x=s[0].toUpperCase()+s.slice(1)**

**return x**

**}**

**ans=fun("pentagon")**

**alert(ans)**

**x=s[0].toUpperCase()+s.slice(1)**

**p entagon**

**0 1234567**

**"P"+"entagon"=Pentagon**

**s.slice(1)===>extracts all chars from 1st index to last index**

**Factorial of a num**

**function fact(n){**

**ans=1**

**for(var i=2;i<=n;i++)**

**{**

**ans=ans\*i**

**}**

**return ans**

**}**

**console.log("Fact(4)="+fact(4))**

**function fact(n){**

**ans=1**

**for(var i=2;i<=n;i++)**

**{**

**ans=ans\*i**

**}**

**return ans**

**}**

**n=4, ans=1, i=2,2<=4-->true, ans=1\*2=2**

**i=3,3<=4-->true, ans=2\*3=6**

**i=4,4<=4-->true, ans=6\*4=24**

**i=5 5<=4-->false**

**Javascript scopes**

**1.Global scope:The variables that are declared outside of functions are called global variables,and this space where these variables are defined called global space**

**var x=10**

**function f1()**

**{**

**console.log(x)**

**}**

**function f2()**

**{**

**console.log(x)**

**}**

**f1()**

**f2()**

**2.Local scope:**

**The variables that are declared inside the functions are called local variables,and this space where these variables are defined called local space.The local variables are not available outside of the function**

**function f1()**

**{**

**var x=10**

**console.log(x)**

**}**

**function f2()**

**{**

**console.log(x) -->error**

**}**

**f1()**

**f2()**

**var x=999**

**function f1()**

**{**

**var x=10**

**console.log(x) -->10**

**}**

**function f2()**

**{**

**console.log(x) --->999**

**}**

**f1()**

**f2()**

**var x=999**

**function f1()**

**{**

**var x=10**

**console.log(x)-->10**

**}**

**function f2()**

**{**

**var x=20**

**console.log(x) -->20**

**}**

**f1()**

**f2()**

**Higher order functions**

**We can pass one function as an argument to another function and we can return function from inside the function,such type of functions are called Higher order functions.**

**function endless(){**

**console.log("hi")**

**console.log("bye")**

**}**

**On console,**

**setInterval(function,timeinms)**

**execute the function repeatedly for every timeinms**

**Anonymous functions**

**Functions without names**

**On console,**

**setinterval(function(){console.log(“Anonymous fn”)},3000)**

**Execute the function() for every 3000ms**