**Conditional operator**

Conditional operator is ternary operator and required 3 operands.

Conditional operator is used for creating conditional expression.

**Syntax:** opr1?opr2:opr3

Opr1 🡪 condition or Boolean expression

Opr2 🡪 it is executed if opr1 is true

Opr3 🡪 it is executed if opr1 is false

In application development conditional operator is used for evaluating expression based on condition or simple expressions.

|  |  |
| --- | --- |
| let n=Number(prompt("Enter any number"));  output=n%2==0?"even":"odd";  console.log(output); | <!DOCTYPE html>  <html lang="en">  <head>      <meta charset="UTF-8">      <meta name="viewport" content="width=device-width, initial-scale=1.0">      <title>Document</title>      <script src="/src/js1.js"></script>  </head>  <body>    </body>  </html> |

|  |  |
| --- | --- |
| // student grade  let p=Number(prompt("Enter Percentage"));  let grade=p>=80?"A":p>=60 && p<80?"B":"C";  console.log(grade); | <!DOCTYPE html>  <html lang="en">  <head>      <meta charset="UTF-8">      <meta name="viewport" content="width=device-width, initial-scale=1.0">      <title>Document</title>      <script src="/src/js1.js"></script>  </head>  <body>    </body>  </html> |

**Control Statements**

Control statements are used to control the flow of execution of program.

Java script support 3 types of control statements

1. Conditional control statements
2. Looping control statements
3. Branching statements

**Conditional Control Statements**

1. If statement (conditional statement)
2. Switch statement (selection statement)

**Looping Control Statements**

1. While loop (Entry controlled looping statement)
2. For loop (Entry controlled looping statement)
3. Do..while (Exit controlled looping statement)

**Branching statements**

1. Break
2. Continue

**If statement**

“if” is a conditional statement, this statement is used to execute block of statements based condition.

1. Simple if
2. If..else
3. If..else if..else (if..else if ladder)
4. Nested if

**Simple if**

If without else is called simple if

|  |
| --- |
| **Syntax**  **if(condition)**  **{**  **Statement-1;**  **Statement-2;**  **}**  **Statement-3;**  if condition is True, it execute statement-1,statement-2 and statement-3  if condition is False, it execute statement-3  **Note**: block is not required, if one statement included within condition.  Block is required to include more than one statement  Block is defined using curly braces. |
| **Example:**  if(10>2)      console.log("JS");  if(10>20)  {      console.log("HTML");      console.log("CSS");  }  if(20>10)  {      console.log("Bootstrap");      console.log("Angular");  }  console.log("NodeJS"); |
| **If..else**  This syntax is having two blocks  if block  else block  Syntax  If(condition)  {  Statement-1;  Statement-2;  }  else  {  Statement-3;  Statement-4;  }  Statement-5  If condition is True, it executes statement-1,statement-2 and statement-5  If condition is False, it executes statement-3,statement-4 and statement-5  Example:  // Voter Elg  let age=Number(prompt("Enter Age of the Person"));  if(age>=18)      console.log("Elg to Vote");  else      console.log("Not elg to Vote");  Example  if(10>5)  {      console.log("Statement-1");      console.log("Statement-2");  }  else  {      console.log("Statement-3");      console.log("Statement-4");  }  if(4>5)  {          console.log("Statement-1");          console.log("Statement-2");  }  else  {          console.log("Statement-3");          console.log("Statement-4");  } |
| **If..else if..else (if..else..if ladder)**  This syntax is used for checking more than one condition.  **Syntax:**  If(condition1)  {  Statement-1;  }  else if(condition2)  {  Statement-2;  }  else  {  Statement-3;  }  Statement-4;  If condition1 is True, it execute statement1 and statement-4  If condition1 is False, condition2 is True it execute statement-2 and statement-4  If all conditions are false, it execute statement-3 and statement-4  **Example:**  let p=Number(prompt("Enter Percentage "));  if(p>=80)      console.log("A");  else if(p>=60 && p<80)      console.log("B");  else if(p>=50 && p<60)      console.log("C");  else      console.log("D") |
| **Nested if**  If within if is called nested if  If followed by if is called nested if  if(condition1)  {  if(condition2)  {  Statement-2;  }  Else  {  Statement-3;  }  Else  {  Statement-4;  } |