**Lab 7**

## Variables

A variable is named reference to a value. The value can be changed. JavaScript sets the data type (format) according to the value that is assigned to it. To declare a variable in JavaScript you write a descriptive named reference and assign it a value.

### Variable Naming

While there can be exceptions, variable names should be a descriptive noun or noun combination. Use *camelCase* so the first word starts with lower case and each consecutive word starts with upper case. Variable names cannot contain spaces. Here is a sample of a variable name declaration and assignment.

|  |
| --- |
| firstName = "Johnny" |

## Comments

Comments help to narrate your code. Comments in JavaScript begin with ‘//’. The JavaScript compiler ignores them. Comments begin with '//'.

|  |
| --- |
| // The variable 'firstName' stores a String which is any character combination  // within quotes.  firstName = "Johnny"; |

Exercise 1 (1 mark)

1. What is a suitable variable name for last name?

|  |
| --- |
| lastName |

1. What is a suitable variable name for car model?

|  |
| --- |
| carModel |

Exercise 2 (2 mark)

1. Is the variable name **MEDICALprescription** a suitable name?

|  |
| --- |
| Yes |

1. Is the variable name **medical Prescription** a suitable name?

|  |
| --- |
| No |

Exercise 3 (2 mark)

Write a program which output your first name and last name on your browser**.**

|  |
| --- |
| <script>    const firstName = "Gurkamal";  const lastName = "Jandu";  document.write(firstName+" "+lastName);  </script> |

Exercise 4 (1 mark)

Write a program which calculates and displays the remainder of 23 divided by 5**.**

|  |
| --- |
| <script>  var number1 = 23;  var number2 = 5;  //Your code is here  remainder=number1 % number2 ;  document.write(remainder) ;  </script> |

Exercise 5 (1 mark)

Write a program which can convert Fahrenheit to Celsius

|  |
| --- |
| <script>  var Fahrenheit = 100;  // °C = 5/9(°F – 32)  var Celsius = 5/9(Fahrenheit-32) ;  document.write(celsius) ;  </script> |

Exercise 6 (3 mark)

Using the following HTML to complete a JavaScrpit program. When you complete it, submit a html file.

|  |
| --- |
| <!DOCTYPE html>  <html lang="en">  <head>  <meta charset="UTF-8">  <meta http-equiv="X-UA-Compatible" content="IE=edge">  <meta name="viewport" content="width=device-width, initial-scale=1.0">  <title>Lab 7</title>  </head>  <body>  <script>  var inputData = prompt("What is your final grade: ");  var letterGrade = 'None';  if(inputData >= 90 && inputData <=100){  letterGrade = 'Your letter grade is: A'  }  else if(inputData >= 80 && inputData <=89){  letterGrade = 'Your letter grade is: B'  }  else if(inputData >= 70 && inputData <=79){  letterGrade = 'Your letter grade is: C'  }  else if(inputData >= 60 && inputData <=69){  letterGrade = 'Your letter grade is: D'  }  else if(inputData >= 50 && inputData <=59){  letterGrade = 'Your letter grade is: E'  }  else if(inputData >= 0 && inputData <=49){  letterGrade = 'Your letter grade is: F'  }  else {  letterGrade = "Please enter valid grade in range 0-100";  }  document.write(letterGrade)  </script>  </body>  </html> |

Requirements:

When you open the html file, you can see the prompt windows asking you to type in your final grade. Note: you need to use the prompt function. Example: var inputData=prompt("What is your final grade: ");

|  |  |
| --- | --- |
| 90-100 | A |
| 80-89 | B |
| 70-79 | C |
| 60-69 | B |
| 50-59 | D |
| 0-49 | F |

Graphical user interface, application

Description automatically generated with medium confidence

1. After you type in your grade. You can click the OK button to view your letter grade.

Graphical user interface, application

Description automatically generated

1. You will see your grade letter on your browser.

Graphical user interface, application

Description automatically generated

Exercise 7 (1 mark)

What is a conditional statement in JavaScript?

* These are the statements that allow us to perform different task based on different conditions. Common types are: ‘IF’, ‘ELSE IF’, ‘ELSE’ and ‘SWITCH’. With if statement the block of code under it will only execute if the condition is true otherwise it will jump to the consecutive else if or else block. Switch case is a sort of alternative of the if statements but with different syntax, we often use terms such as ‘break or ‘continue’ in it.