4CS017 – Internet Software Architecture workshop sheet

Introduction to JavaScript

Make a copy of this document. Paste only your JavaScript code in the boxes after each question. Submit the document back.

1. Write a JavaScript program to display the current day and time in the following format.

Today is : Tuesday.

Current time is : 10 PM : 30 : 38

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| var todayDate = new Date();  var day = todayDate.getDay();  var weekday = ["Sunday", "Monday", "Tuesday", "Wednesday",   "Thursday", "Friday", "Saturday"];  var meridiem = todayDate.getHours() >= 12 ? " PM " : " AM ";  console.log("Today is: " + weekday[day]);  console.log("Current Time: " + todayDate.getHours() + meridiem + ": " +   todayDate.getMinutes() + " : " + todayDate.getSeconds()) |

1. Write a JavaScript program to check whether the last digit of the three given positive integers is the same.

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| function lastDigit(a,b,c) {      if (a % 10 == b % 10 && a % 10 == c % 10) {          console.log(a, b, c, "Last digit are same");      } else {          console.log(a, b, c, "Last digit are not same");      }  }  lastDigit(10,20,30) |

1. Write a JavaScript program where the program takes a random integer between 1 to 10, the user is then prompted to input a guess number. If the user input matches with the guess number, the program will display a message "Good Work" otherwise display a message "Not matched".

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| function guessNumber() {      var randomNumber = Math.floor(Math.random() \* 10) + 1;      userNumber = Number(prompt("Please enter a number from 1 to 10"));      if (randomNumber == userNumber) {          alert("Good Work");      } else {          alert("Not Matched. The number was " + randomNumber);      }  }  guessNumber() |

1. Declare a simple “Array” of “Object” of the following table.

|  |  |  |  |
| --- | --- | --- | --- |
| **Name                            Age                         Gender                  Favorite Team** | | | |
| **Ram** | 19 | Male | FK Athens |
| **Jagdish** | 23 | Male | Mallorca |
| **Bibina** | 21 | Female | Girona |
| **Sommer** | 27 | Male | Shrewsbury |
| **Sameera** | 23 | Female | Internationale |

Make use of iteration, functions, conditional statements and anything necessary to create a  sentence for each row as follows:

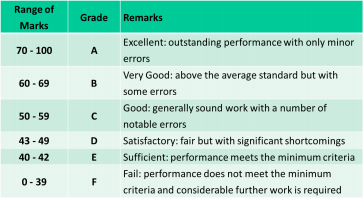
“**Shyam** is **23** years of age. **His** favorite football team is **Lille**”.

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| function identity(name, age, gender, favourite\_team) {      this.name = name;      this.age = age;      this.gender = gender;      this.favourite\_team = favourite\_team;  }  var identityOne = new identity("Ram", "19", "Male", "FK Athens");  var identityTwo = new identity("Jagdish", "23", "Male", "Mallorca");  var identityThree = new identity("Bibina", "21", "Female", "Girona");  var identityFour = new identity("Sommer", "27", "Male", "Shrewsbury");  var identityFive = new identity("Sameera", "23", "Female", "Internationale");  var totalIdentity = [];  totalIdentity.push(identityOne, identityTwo, identityThree, identityFour,  identityFive);  for (let identity of totalIdentity) {      if (identity.gender == "Male") {          identity.gender = "His";      } else {          identity.gender = "Her";      }      console.log(identity.name + " is " + identity.age + " years of age. " +  identity.gender + " favorite football team is " + identity.favourite\_team);  } |

1. Declare an **Object** of the following table.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name                 CS01                 CS02                 CS03                        CS04** | | | | |
| **Ram** | 65 | 80 | 68 | 72 |
| **Jagdish** | 56 | 61 | 63 | 68 |
| **Bibina** | 51 | 48 | 63 | 55 |
| **Sommer** | 48 | 65 | 61 | 76 |
| **Sameera** | 65 | 45 | 86 | 96 |

Make use of iteration, functions, conditional statements and anything necessary to calculate  the average marks of each person and show their respective grades based on their average  marks.



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| --- |
| function newstudents(name, cs01, cs02, cs03, cs04) {      this.name = name;      this.cs01 = cs01;      this.cs02 = cs02;      this.cs03 = cs03;      this.cs04 = cs04;  }  var studentOne = new newstudents("Ram", 65, 80, 68, 72);  var studentTwo = new newstudents("Jagdish", 56, 61, 63, 68);  var studentThree = new newstudents("Bibina", 51, 48, 63, 68);  var studentFour = new newstudents("Sommer", 48, 65, 61, 76);  var studentFive = new newstudents("Sameera", 65, 45, 86, 96);  var totalStudents = [];  totalStudents.push(studentOne, studentTwo, studentThree, studentFour, studentFive);  console.log("Name       Marks       Grade       Remark");  for (let student of totalStudents) {      var markScored = (student.cs01 + student.cs02 + student.cs03 + student.cs04)/4;      if (markScored >= 70 && markScored <= 100){          console.log(student.name + "        " + markScored + "         " + "A" +  "         " + "Excellent");      } else if (markScored >= 60 && markScored <= 69) {          console.log(student.name + "        " + markScored + "         " + "B" +  "         " + "Very Good");      } else if (markScored >= 50 && markScored <= 59) {          console.log(student.name + "        " + markScored + "         " + "C" +  "         " + "Good");      } else if (markScored >= 43 && markScored <= 49) {          console.log(student.name + "        " + markScored + "         " + "D" +  "         " + "Satisfactory");      } else if (markScored >= 40 && markScored <= 43) {          console.log(student.name + "        " + markScored + "         " + "E" +   "         " + "Sufficient");      } else if (markScored >= 0 && markScored <= 39) {          console.log(student.name + "        " + markScored + "         " + "F" +  "         " + "Fail");      }  } |