**School of Digital Media & Infocomm Technology (DMIT)**

**ST2111 Mobile Application Development I**

**Practical 3**

**Conditional Statements**

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| --- |
| Objectives:  After completing this lab, you should be able to:   * Write programs which use *if else* statements * Write programs which use *switch* statements |

**Exercise 1: Write Programs Involving if Statements**

1. Create a copy of the **practical1-1** in the same **MAD1** folder.
2. Rename the copied folder as **practical3-1** folder.
3. Type **Listing A** inside **container.html** and type **Listing B** inside **script.js**.
4. Save your work.
5. Run **container.html** in the browser. What is the result?
6. Replace the == operator in Listing B with === operator.
7. Run the program again. What is the result?
8. Explain why changing with different operator produces different results.

|  |
| --- |
| <html>  <head>  <title> Simple Page </title>  </head>  <body>  <p>This is a simple HTML page </p>  <script src=”script.js”></script>  </body>  </html> |

**Listing A. container.html**

|  |
| --- |
| var a = 123;  var b = ”123”;  if (a==b){  alert(“Yes, they are equal”);  }  else {  alert(“No, they are not equal”);  } |

**Listing B. script.js**

**Exercise 2: Write Programs Involving if Statements**

1. Create a copy of the **practical1-1** in the same **MAD1** folder.
2. Rename the copied folder as **practical3-2** folder.
3. Write a program which prompts a user for two variables and displays the greater number. (e.g. if the two values entered are 5 and 10, the message displayed will be “The greater number of 5 and 10 is 10.").
4. You can type your solution inside **script.js**.
5. Verify the correctness of your solution by running your program.

**Exercise 3: Write Programs Using if Statements**

1. Create a copy of the **practical1-1** in the same **MAD1** folder.
2. Rename the copied folder as **practical3-3** folder.
3. The following table illustrates the cutoff scores for the various academic grades in SP. Write code in **script.js** that will prompt the student for his score, determine the grade based on the table and display his grade.

|  |  |
| --- | --- |
| **score** | **grade** |
| 80 and above | ‘A’ |
| 70 to 79 | ‘B’ |
| 60 to 69 | ‘C’ |
| 50 to 59 | ‘D’ |
| 49 and below | ‘F’ |

**Exercise 4: Write Programs Using switch Statements**

1. Create a copy of the **practical1-1** in the same **MAD1** folder.
2. Rename the copied folder as **practical3-4** folder.
3. The following table shows the prize money for the SP Idol contestants.

|  |  |
| --- | --- |
| **Rank** | **Prize Money ($)** |
| 1 | 1000 |
| 2 | 800 |
| 3 | 700 |
| 4 | 300 |
| 5 | 300 |
| Others | 20 |

Write a program that will prompt for the rank of the contestant and your program should display his prize money. You are to implement the logic using **switch** statement.

**Exercise 5: Logical Operators**

1. Create a copy of the **practical1-1** in the same **MAD1** folder.
2. Rename the copied folder as **practical3-5** folder.
3. Write a program that displays the result of the following logical operators:

|  |  |
| --- | --- |
| Expression | Result (true/false) |
| **var a1 = true && true;** | True |
| **var a2 = true && false;** | false |
| **var a3 = false && true;** | False |
| **var a4 = false && (3 == 4);** | false |
| **var o1 = true || true;** | true |
| **var o2 = false || true;** | True |
| **var o3 = true || false;** | True |
| **var o4 = false || (3 == 4);** | False |
| **var n1 = !true;** | False |
| **var n2 = !false;** | True |

For example:

**if (a1==true){**

**alert(“a1 is true”);**

**}**

**else {**

**alert(“a1 is false”);**

**}**

**Exercise 6: Run Exercises in the Android Simulator**

You may run your exercises using the Phonegap Android Simulator to view the output. For example, if you wish to test out **practical3-1**, do the following:

1. From the [Start screen,](http://www.computerhope.com/jargon/w/windows8.htm) click **Command Prompt** to open the Windows console.
2. Navigate to **MAD1** folder. (Note: If your MAD1 folder is in **c: drive**, type **cd\** to bring you to the root directory first, then type **cd mad1** to go to MAD1 folder. If your MAD1 folder is in **d: drive**, type **d:** to change to d: drive first, then type **cd mad1** to go to MAD1 folder.**)**
3. Create the new app by typing **phonegap create practical3-1app**and press enter.
4. Open a text editor and open the file located in **mad1\practical3-1app\www\index.html**.
5. Replace the text with the code in **Listing D** below.
6. Copy **script.js** from **practical3-1** to the **www** directory.
7. Type **phonegap run android**.
8. Your JavaScript program is run in the Android Simulator.

|  |
| --- |
| <html>  <head>  <meta charset="utf-8" />  <meta name="format-detection" content="telephone=no" />  <meta name="msapplication-tap-highlight" content="no" />  <!-- WARNING: for iOS 7, remove the width=device-width and height=device-height attributes. See https://issues.apache.org/jira/browse/CB-4323 -->  <meta name="viewport" content="user-scalable=no, initial-scale=1, maximum-scale=1, minimum-scale=1, width=device-width, height=device-height, target-densitydpi=device-dpi" />    <title>Hello World</title>  </head>  <body>  **<h3>My First Javascript</h3>**    <script type="text/javascript" src="cordova.js"></script>  <script type="text/javascript" src="js/index.js"></script>  <script type="text/javascript">  app.initialize();  </script>  **<script src="script.js"></script>**  </body>  </html> |

**Listing D. index.html**