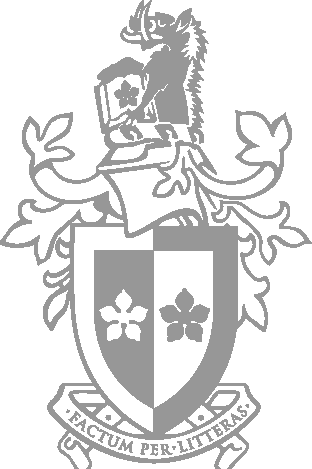
Faculty of Science, Engineering and Technology





**Interface Design and Development**

Pass Task 4: Creating Controllers

**Overview**

Controller enables you to prepare model and write functions to updates and manipulates model. In this task you will create a number guessing game web application that uses controllers to generate a random number for guessing, the view-model should be able to handle the hint, and show number through expressions and conditional directive.

**Purpose:** Learn how to use controllers.

**Task:** Create a web app that asks the user to guess and number and provide hints whether it is higher or lower.

**Time:** This task should be completed in your lab class and submitted for feedback before the start of week 6

**Resources:**

* + - Lecture notes #3 and #4

***Submission Details***

You must submit the following files to Blackboard:

* Number Game source code (numbergame.html).
* Number Game controller source code (app.js).
* Screenshot of the web app.

Make sure that your task has the following in your submission:

* The Number Game web application is HTML5 compliant.
* Demonstrates understanding in using the AngularJS framework.
* Demonstrates use of AngularJS controllers.



**Instructions**

Implement the number guessing game. In this program you will need to use the controller to generate the random number, as ng-init only allows AngularJS expression and not JavaScript. This is to prevent the introduction of any controller operation in view-model. Depending on user input, the view-model can display appropriate views using conditional directives. Controller is needed to regenerate a new number.

1. Start by creating a new HTML file in Brackets.
2. Implement the basic outline of an AngularJS web app with the appropriate scripts.

**Note:** It is a good practice to write the controller in a separate file.

<!–- Your Controller -->

<script src="js/app.js"></script>

1. Create the various view sections in the HTML file.
   * User input for the user to enter their guess
   * 3 Buttons for (1) check guess, (2) give up (3) start new game
   * Message view
     1. Shows the message “Start guessing” (Initially or after the start new is clicked)
     2. Shows the message “Guess higher” or “Guess lower” or “You got it!”, (after check guess is clicked, message is dependent on the input)
     3. Shows the number when give up is clicked
2. Create the controller file app.js with the module template.

Web App: **app.js**

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var app = angular.module("myApp", []);

app.controller ("myCtrl",

function ($scope){

:

<your code here>

}

);

1. Initialise the number to guess property and method to generate the random number.

**Hint:** Use JavaScript Math.floor(Math.random() \* <highest number>) + <lowest number>.

1. Your web app should now be complete. Finally, add comments and apply bootstrap styling to your app. Make sure you test it on the browser to make sure that it works as you expect.