proj2.html file SOURCE CODE

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<!--Citation(helped as initial example) https://technology.vishalsrini.com/game-guess-number-angular/ -->

<!DOCTYPE html>

<html lang="en" xmlns="http://www.w3.org/1999/xhtml">

<head>

<meta charset="utf-8" />

<title>Proj2\_Lottery</title>

<link rel="stylesheet" href="StyleSheet1.css">

<script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.6.10/angular.min.js"></script>

<script src="Script1.js"></script>

</head>

<body ng-app="myApp">

<div ng-controller="GuessTheNumberController">

<h2>Guess the Number !</h2>

<!-- allow user to choose difficulty options and changes when selecting a new option-->

<label>Game Mode: <select ng-model="selectedItem" ng-options="x.name for x in items track by x.name" ng-change="initializeGame(selectedItem.value)"></select></label>

<p>Guess the computer generated random number between 1 and {{selectedItem.value}}.</p>

<!-- User input-->

<label>Your Guess: </label><input type="number" ng-model="guess"/>

<!-- button to activate checkGuess function-->

<button ng-click="checkGuess()">Play!</button>

<!-- button to activate reset function-->

<button ng-click="initializeGame(selectedItem.value)">Restart</button>

<!-- based on deviation value, string displays for user whether guess was too high or low -->

<p ng-show="deviation<0">Your guess is higher.</p>

<p ng-show="deviation>0">Your guess is lower.</p>

<p ng-show="deviation===0">Correct!</p>

<!-- Used for testing purposes ---->

<!-- UNCOMMENT IF NEEDED FOR TESTING <p>The winning number:{{original}}</p> -->

<!-- Display number of guesses-->

<p>Number of guesses :{{tries}}</p>

<!--display array with ng-repeat-->

<h2>User Guess Attempts</h2>

<ul>

<li ng-repeat="guess in userGuesses">

<a>{{guess}}</a>

</li>

</ul>

</div>

</body>

</html>

Script1.js file SOURCE CODE

// JavaScript source code

angular.module('myApp',[])

.controller('GuessTheNumberController', GuessTheNumberController);

function GuessTheNumberController($scope) {

//array to track all user guesses during a session

$scope.userGuesses = [];

//default selected name game mode

$scope.selectedItem = {name: "medium", value: 20};

//array value of three game modes dictating the max value

$scope.items = [

{name: "easy", value: 10},

{name: "medium", value: 20},

{name: "hard", value: 100}

];

//default start value

$scope.default = 20;

//function to check user input validity and keep track of tries

$scope.checkGuess = function () {

//if input is higher or lower than random value

$scope.deviation = $scope.original - $scope.guess;

//user attempts

$scope.tries = $scope.tries + 1;

var guess = $scope.guess;

//pushes user guesses into array

$scope.userGuesses.push(guess);

//if not a number, display alert and remove from array

if (isNaN(guess) == true){

alert("Not a Number! Try again");

$scope.tries = $scope.tries - 1;

$scope.userGuesses.pop();

//if null, display alert and remove from array

} else if (guess == null){

alert("Must Enter Value! Try again");

$scope.tries = $scope.tries - 1;

$scope.userGuesses.pop();

//if guess matches, display win alert and reset game

} else if ($scope.guess == $scope.original){

alert("You WIN, the winning number was :" + $scope.original)

$scope.initializeGame($scope.default);

//if attempts more than 4, display lose alert, all guesses, and reset game

} else if ($scope.tries > 4){

alert("You lose, the winning number was : " + $scope.original + "\n" +

"Your guesses were : " + $scope.userGuesses);

$scope.initializeGame($scope.default);

}

};

//function to initialize and reset the game based on chosen difficulty

$scope.initializeGame=function(max) {

$scope.default = max;

$scope.userGuesses = [];

$scope.tries = 0;

$scope.original = Math.floor((Math.random() \* $scope.default) + 1);

$scope.guess = null;

$scope.deviation = null;

};

//initialize with default val

$scope.initializeGame($scope.default);

};