# Homework: JavaScript Development Introduction

This document defines the homework assignments from the [“JavaScript Basics“ Course @ Software University](http://softuni.bg/courses/javascript-basics/). Please submit as homework a single zip / rar / 7z archive holding the solutions (source code) of all below described problems.

## Current Time

Write a JavaScript program **current-time.js** that prints on the console the current time in **UTC** format. Execute your file through **Node.js**. A sample output is given below:

|  |  |
| --- | --- |
| **Input** | **Output** |
| (no input) | Mon, 09 Mar 2015 12:25:12 GMT |

## Circle Area

Write a JavaScript function **calcCircleArea(r)** that takes as a parameter the **radius of a rectangle** and calculates and returns its area. Put the function in a file named **circle-area.js**. Write a HTML page **circle-area.html** that includes the script **circle-area.js** and calculates and prints in the page body the area of circles of size r=7, r=1.5 and r=20. Examples:

|  |  |  |
| --- | --- | --- |
| **Input** | **Output** |  |
| 7 | 153.93804002589985 |
| 1.5 | 7.0685834705770345 |
| 20 | 1256.6370614359173 |
|  |  |

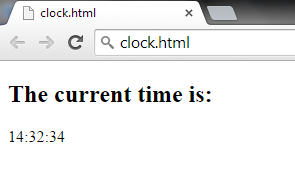
## Decimal to Hexadecimal

Write a JavaScript code in a Web page **dec2hex.html** that enters a positive integer number **num** and converts and converts it to a hexadecimal form. The input should be entered as JavaScript **prompt** window. The output should be shown as browser popup window (**alert**). Examples:

|  |  |  |
| --- | --- | --- |
| **Input** | **Output** |  |
| 254 | FE |
| 6779 | 1A7B |
| 10941298 | A6F372 |
| 65535 | FFFF |

## Clock

Write a JavaScript function in a Web page **clock.html** that shows the current time in format hh:mm:ss. The time should **update itself** so that it works as a clock. A sample output is shown below:



## \*Tic-Tac-Toe

Implement the classical [Tic-Tac-Toe game](http://en.wikipedia.org/wiki/Tic-tac-toe) in JavaScript. Players play one after another. Use HTML to display the play field and JavaScript to implement the game logic. The screenshot below shows how your game could look like:

