



# Web Development Module Overview

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Timetable + Schedule

Module Overview

Assignment Sequencing

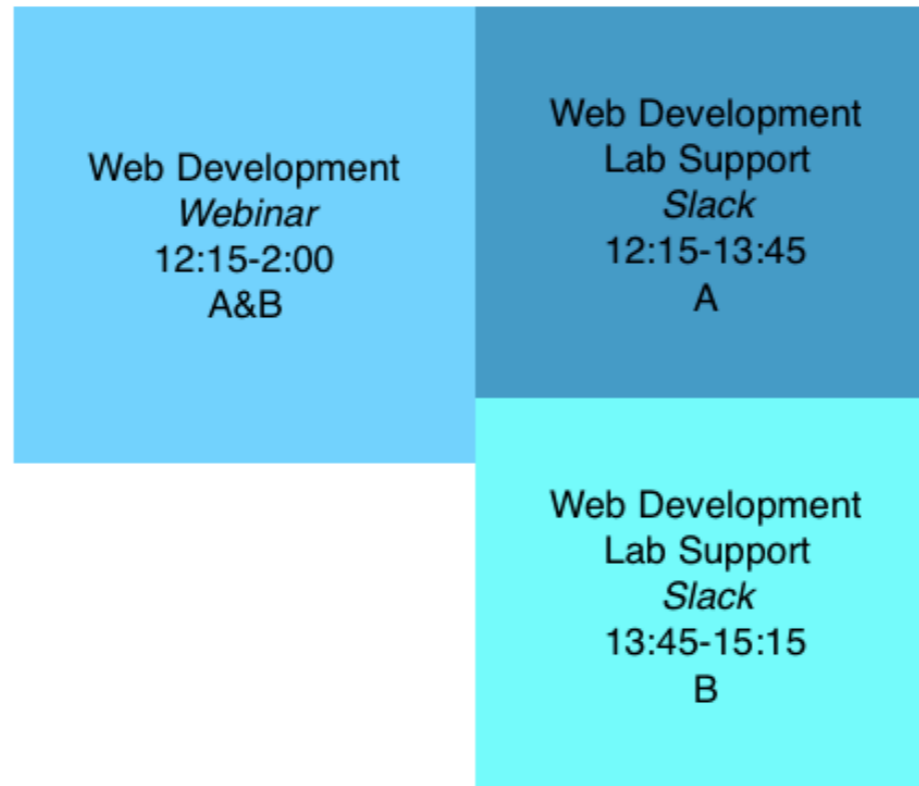
WEDNESDAY

THURSDAY

FRIDAY

10:45

# Webinar



12:15

13:45

15:15


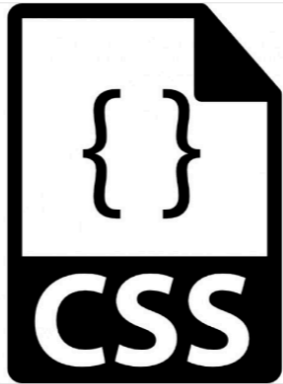
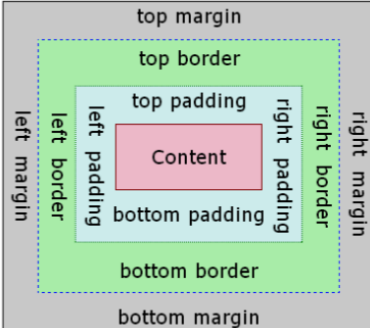




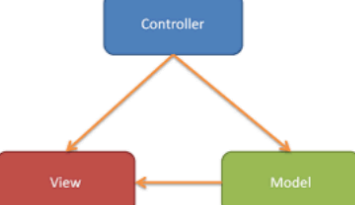

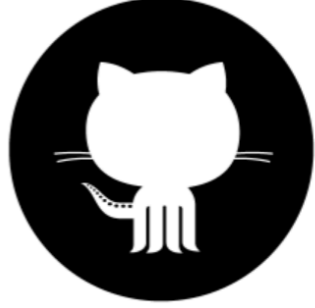
# Lab Support Help Desk





# 12 Topics – one topic per week

Each Topic builds on concepts, tools and techniques from previous weeks.

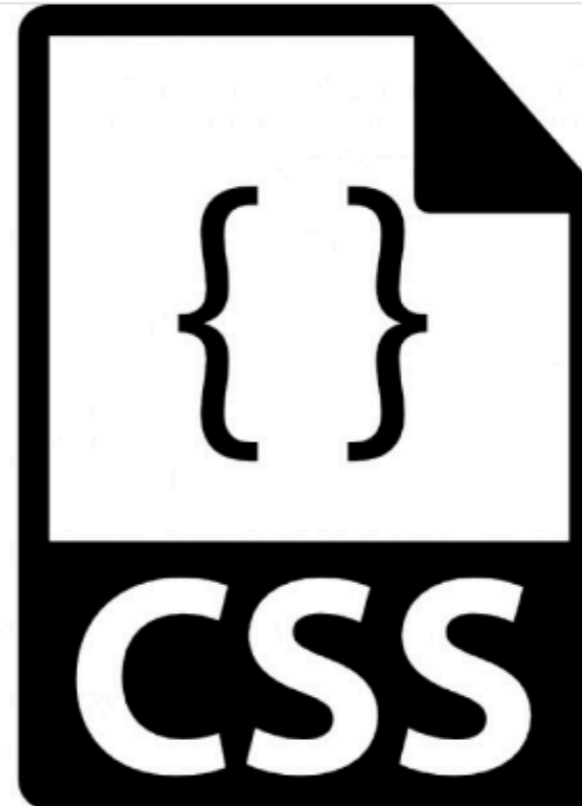
|  |  |   |  |
|--|--|---|--|
| <h3>1: Introducing HTML</h3>  <p>web · client/server · browser · html · documents · elements · attributes · links · images · nesting · block · inline</p> | <h3>2: Introducing CSS</h3>  <p>markup · style · function · stylesheet · rules · selectors · declarations · properties · values · classes · ids · inheritance</p> | <h3>3: The Box Model</h3>  <p>content · padding · border · margin · style · width · colour · dom · layout · float · left · right</p>       | <h3>4: Navigation</h3>  <p>html versions · header · main · nav · primary · secondary · footer · semantic elements · html style guide</p>  |
| <h3>5: HTML Templates</h3>  <p>servers · hosting · deployment · dns · local server · dry · template engine · ejs · partials · layouts</p>                | <h3>6: CSS Frameworks</h3>  <p>review · bootstrap · semantic ui · container · segment · grid · stackable · tables · icons · images · row · col</p>               | <h3>7: Applications</h3>  <p>sites · apps · frameworks · command line · ide · java · request · response · front-end · back-end</p>        | <h3>8: Model View Controller</h3>  <p>model · view · controller · config · template · layout · database · table · entity · onetomany</p> |
| <h3>9: Forms</h3>  <p>routes · get · post · delete · template loops · submit · buttons · 404</p>  | <h3>10: Sessions</h3>  <p>stateless · stateful · tracking · cookies · signup · login · logout · session object · clearing</p>                                   | <h3>11: Git, Github &amp; Bitbucket</h3>  <p>repository · local · remote · push · pull · stage · commit · sourcetree · tag · history</p> | <h3>12: Deployment</h3>  <p>heroku · cli · config · database · dashboard · logs · startup · management · shutdown</p>                   |

## 1: Introducing HTML



web · client/server · browser · html  
· documents · elements · attributes  
· links · images · nesting · block ·  
inline

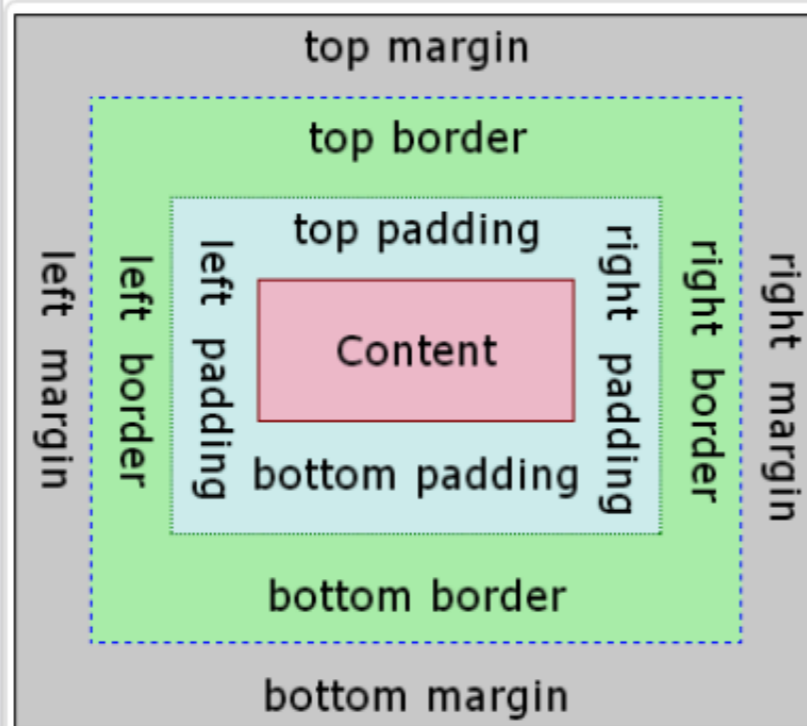
## 2: Introducing CSS



markup · style · function ·  
stylesheet · rules · selectors ·  
declarations · properties · values ·  
classes · ids · inheritance

Core HTML + CSS

### 3: The Box Model



content · padding · border · margin  
· style · width · colour · dom · layout  
· float · left · right

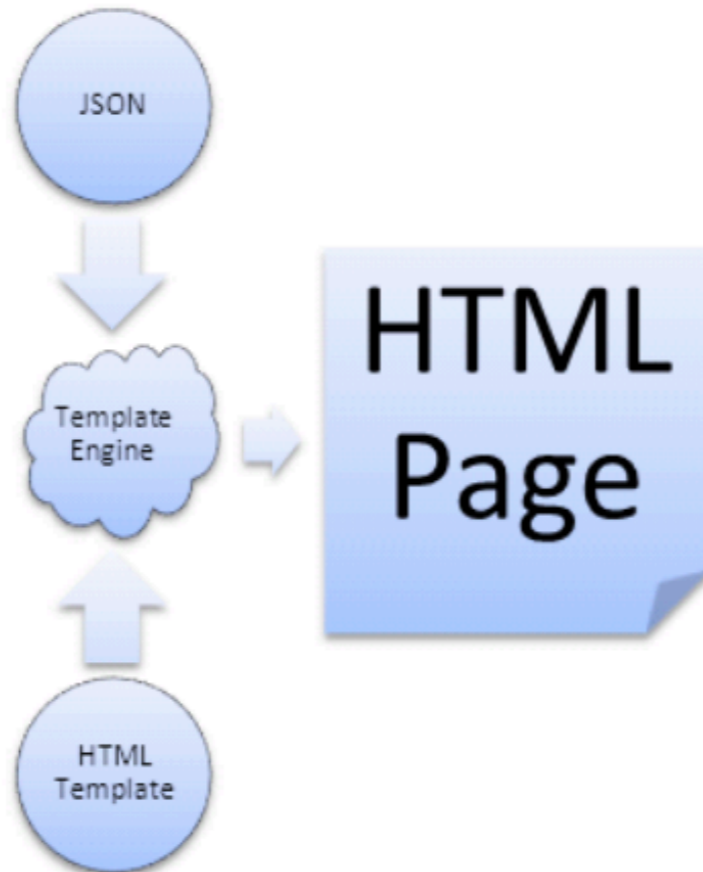
### 4: Navigation



html versions · header · main · nav  
· primary · secondary · footer ·  
semantic elements · html style  
guide

Laying out pages with CSS  
Structuring a Navigation Metaphor

## 5: HTML Templates



servers · hosting · deployment ·  
dns · local server · dry · template  
engine · ejs · partials · layouts

Modularising  
a web site

## 6: CSS Frameworks



### Programming

Learn a broad range of programming and problem solving skills, including exciting new platforms, software tools and languages. Use these skills to build apps for mobile, cloud and device based IoT applications. Evolve a portfolio of fascinating applications.



### Data Science

At the heart of many IoT applications is data: measurements, events alarms and other information that must be relayed, stored and ultimately turned into knowledge. Learn the fundamentals of modern approaches to data in this strand.



### Networks

This strand will explore modern networks and cloud technology. Be able to configure, network and manage all categories of computer systems from simple controllers to single board computers, mobiles and full workstations.



### Project

Building exciting IoT projects in every semester of the programme. Your projects will combine skills acquired from the other strands and enable you to build a comprehensive and compelling portfolio of IoT applications and services.



review · bootstrap · semantic ui ·  
container · segment · grid ·  
stackable · tables · icons · images ·  
row · col

Professional  
Styling with  
CSS Libraries



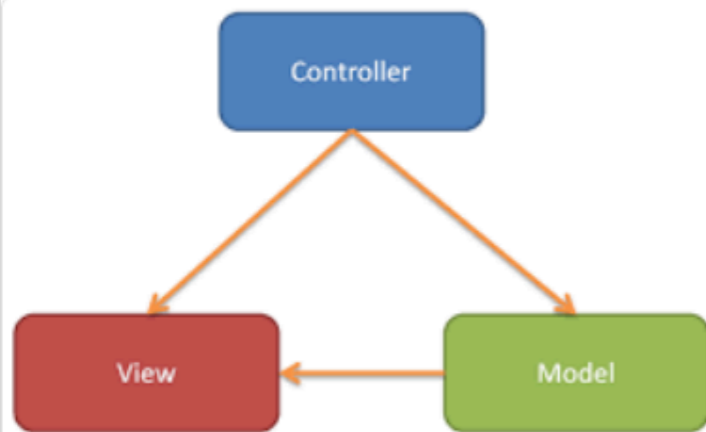
# From Web Sites to Web Applications

## 7: Applications



sites · apps · frameworks ·  
command line · ide · java · request ·  
response · front-end · back-end

## 8: Model View Controller



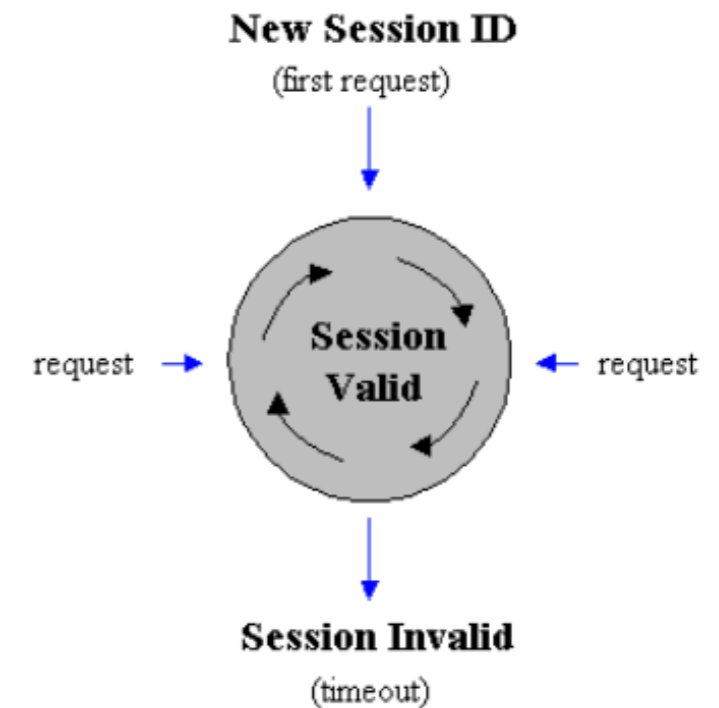
model · view · controller · config ·  
template · layout · database · table  
· entity · onetomany

## 9: Forms



routes · get · post · delete ·  
template loops · submit · buttons ·  
404

## 10: Sessions



stateless · stateful · tracking ·  
cookies · signup · login · logout ·  
session object · clearing

# Fundamentals of Web Application Development

## 11: Git, Github & Bitbucket



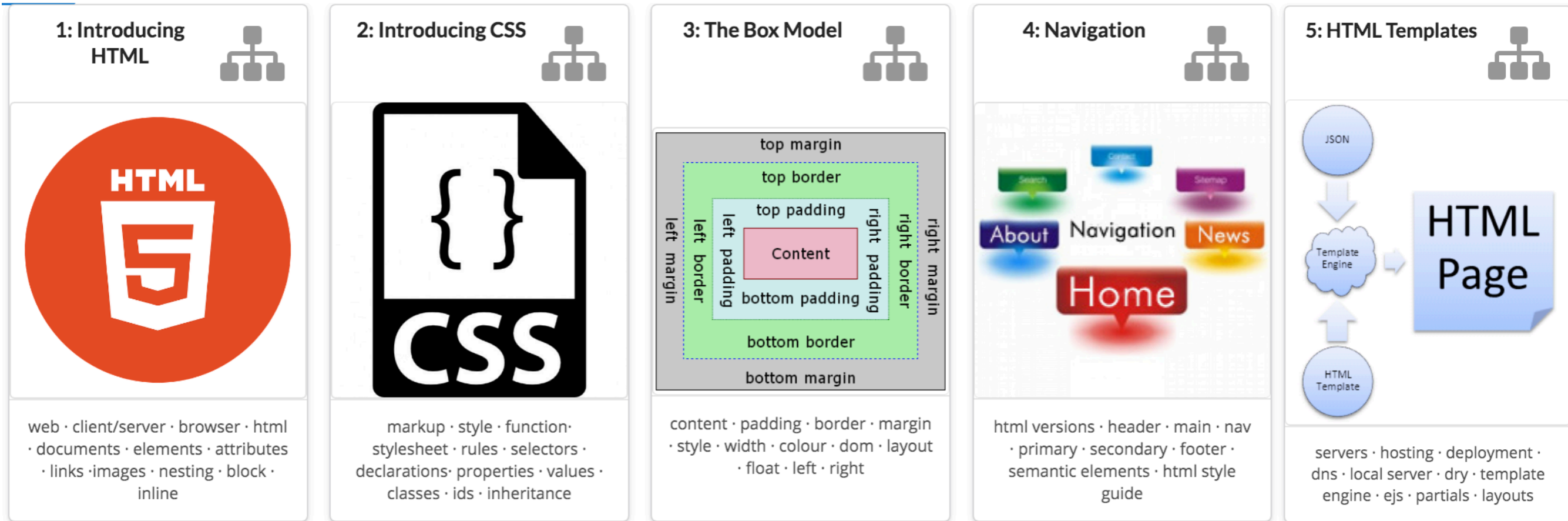
repository · local · remote · push ·  
pull · stage · commit · sourcetree ·  
tag · history

## 12: Deployment



heroku · cli · config · database ·  
dashboard · logs · startup ·  
management · shutdown


Moving an Application to  
the Cloud



Assignment 1 based on skills acquired in topics 1-5

Allocated 40% of overall module grade



### 6: CSS Frameworks



|  |   |
|--|---|
| <b>Programming</b><br>Learn a broad range of programming and problem solving skills, including exciting new platforms, software tools and languages. Use these skills to build apps for mobile, cloud and device based IoT applications. Evolve a portfolio of fascinating applications. | <b>Data Science</b><br>At the heart of many IoT applications is data: measurements, events, alarms and other information that must be relayed, stored and ultimately turned into knowledge. Learn the fundamentals of modern approaches to data in this strand. |
| <b>Networks</b><br>This strand will explore modern networks and cloud technology. Be able to configure, network and manage all categories of computer systems from simple controllers to single board board computers, mobiles and full workstations.                                    | <b>Project</b><br>Building exciting IoT projects in every semester of the programme. Your projects will combine skills acquired from the other strands and enable you to build a comprehensive and competing portfolio of IoT applications and services.        |


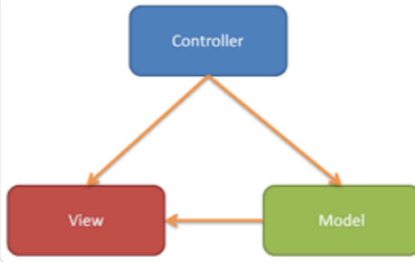
review · bootstrap · semantic ui · container · segment · grid · stackable · tables · icons · images · row · col

### 7: Applications

sites · apps · frameworks · command line · ide · java · request · response · front-end · back-end

### 8: Model View Controller


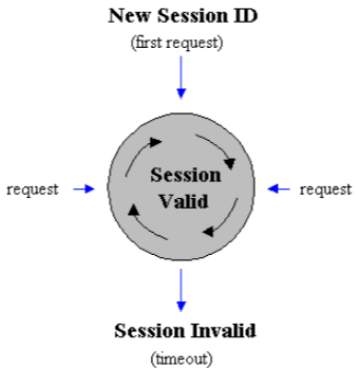
model · view · controller · config · template · layout · database · table · entity · onetomany

### 9: Forms





routes · get · post · delete · template loops · submit · buttons · 404

### 10: Sessions

stateless · stateful · tracking · cookies · signup · login · logout · session object · clearing

### 11: Git, Github & Bitbucket




repository · local · remote · push · pull · stage · commit · sourcetree · tag · history

### 12: Deployment




heroku · cli · config · database · dashboard · logs · startup · management · shutdown

Assignment 2 based on skills acquired in topics 6-12

Allocated 60% of overall module grade