# Web and Cloud Application Development

# Lab/Activity 1

Course Learning Outcome: CLO1

- Discuss Technologies, languages & frameworks to Implement Web Applications.

Chapters: Chapter 1

Cognitive Levels: Understand

Aim: The student should be able to:

* Understand the difference between the Internet and the Web
* Explain how the Web works
* Identify what a web server does
* Identify what a web client does
* Identify the differences between current and emerging Web Technologies

Tools: Laptop, pen papper, internet for doing research

# [MCQ- UNDERSTAND]

1. What is the domain name in the following URL: http://www.mystore.com:80/products/index.jsp

a. mystore.com

b. http

c. products

d. index.jsp

1. Which of the following statement is TRUE about a HTTP Post request?
   1. In a HTTP Post request, the data is sent inside the body of the message
   2. The data sent in a HTTP Post request is appended to the URL
   3. HTTP Post is less secure than HTTP GET Request
   4. Using HTTP Post method you cannot send a large amount of data

# Exercise 1- UNDERSTAND

Analyze the given URL: https://www.dbs.ie/course/postgraduate/master-of-science-(msc.)-in-artificial-intelligence

Identify each of the following:

Protocol?

Domain/host?

Path?

Resource?

Query string?

Parameter/Value Pairs?

# Exercise 2- UNDERSTAND

Analyze the given URL: <https://some.com/vehicles/trucks/mazda.php?model=2017&type=used>

Identify each of the following:

* 1. Protocol?
  2. Domain/host?
  3. Path?
  4. Resource?
  5. Query string?
  6. Parameter/Value Pairs?

# Exercise 3 - UNDERSTAND

What is the Client/Server principle? How are the WWW documents accessed in Client/Server model?

# Exercise 4 - UNDERSTAND

Why is HTTP is considered to be a stateless protocol?

# Exercise 5 - UNDERSTAND

Write a note on some differences between client-side and server-side technology.

# Exercise 6 - UNDERSTAND

Write down 3 Client-side programming technologies to create dynamic contents.

# Exercise 7 - UNDERSTAND

Write down 3 Server-side programming languages used to create dynamic contents.

**HOMEWORK TASK:**

# Exercise 8 - UNDERSTAND

Analyzing http requests in Web Browser:

-Run Firefox (or Chrome), go to **Network** tab in Developer Tools.

-Enter URL <http://www.hct.ac.ae> in address bar, press enter and answer the following questions:

-What is the total number of requests to the server?

-What are the different http methods used in requests?

-What are the total number of requests for each of the following document types (content-type): HTML, CSS, JS, and Images? You can see them by selecting the specific tag.

-What are the different status codes for requests?

-Check **Headers**, **Params**, and **Response** tabs of one request for each of the following content type: html, css, js, images.

# Exercise 8 - UNDERSTAND

List down 5 classes of HTTP status codes and write two codes for each class with code details.

# Exercise 9 - UNDERSTAND

Write a short note explaining how the following technologies are different: HTML, CSS, JavaScript, and ASP .NET