# Web Development & Deployment Pair Project 2022-23

## Groups

Create a pair of students within your lab group and fill in the spreadsheet with the details (project, names, student numbers) of your groups. Populate form by 10/10/2021.

[Project Pairs](https://tudublin-my.sharepoint.com/:x:/g/personal/paul_kelly2_tudublin_ie/EbrS2D92hNJGsUIZT1cn7FQBPL8PMR6lgXB2Ge7_YtHqHg?e=rhU6jC) – 2022/2023

## Project

Develop a web application that interacts with a Mongo database via Node.JS and that includes an authentication mechanism. The application must implement the 4 CRUD operations (Create/Read/Update/Delete) at least once.

## Example

An example is a Real estate web application, with a pre-populated DB, that allows users to:

* Register: create, read, update or delete a profile with personal information, including a profile picture and password management (change, recovery)
* Authentication: Log in and log out
* Search: for houses apartments that match certain criteria (e.g. price max/min, area)
* View: View search results
* Filter: The search results
* Add property to a personal area (e.g. “My Properties”)
* Only logged in users can add properties to the personal area
* Any user can search for properties and see the results.

## Instructions

**You are free to choose the exact application** but consider the required components in the marking scheme below. I do not want to see 20 real estate applications. It could be a book library app, car rental app. Same idea, different domain.

Students are not allowed to share their own code outside their group. Any external code snippets, libraries or frameworks used must be properly acknowledged (for example with comments in the code). Remember the policy on plagiarism – facilitators and perpetrators, both get zero.

Submit your project in a compressed ZIP folder via Brightspace by 23:59 on 20/11/2022. Include the code folder, test data in a mongo file for the application and a readme.txt with configuration and deployment information. **Please remove the node\_modules folder prior to compressing (it’s too large).** One submission per group is enough, but make sure there is one.

Late submissions not accepted.

Mandatory demos will start on 21/11/2022.

## Technologies

The following technologies are allowed:

* Frontend:
  + React
  + **Note: When using React, you must make it communicate with Node.JS using different servers.**
  + CSS frameworks: Bootstrap
* Backend:
  + Node.JS (Can use ExpressJS for Rest also)
  + Databases: MongoDB

## Discussion

Individual discussion of contributions, understanding of whole solution. Individual discussion mark as a multiplier of the overall project mark.

For example:

* Project mark = 50
* Discussion mark (student A) = 80
* Discussion mark (student B) = 100
* Result: student A = 50\*0.8% = 40% ; student B = 50\*1.0 = 50%

## Marking Scheme

This project is worth 85% of module marks. Each category of the marking scheme below is assessed in terms of not done/attempt/sufficient/good/excellent.

For items worth 10 marks:

* not done=0 marks
* attempt = 1 – 2 marks
* poor = 3 – 4 marks
* sufficient = 5 – 6 marks
* good = 7 – 8 marks
* excellent = 9 – 10 marks

For items worth 5 marks:

* not done=0 marks
* attempt = 1 mark
* poor = 2 marks
* sufficient = 3 marks
* good = 4 marks
* excellent = 5 marks

## Rubric

#### Functionality (50 marks)

* Authentication – 10 marks
* Personal and Public areas – 5 marks
* CRUD operations – 10 marks
* Profile management – 5 marks
* Advanced Search and Filter mechanism – 5 marks
* Validation of inputs (from forms) – 5 marks
* Upload mechanism (for files) – 5 marks
* Asynchronous communication (AJAX, with DB, JSON or XML file) – 5 marks

#### Usability/User Experience (25 marks)

* Communication with the User (error messages, etc.) – 5 marks
* Bootstrap (for visuals) – 10 marks
* Responsive – Works well on mobile and Web - 10 marks

#### Documentation (10 marks)

* Deployment instructions (readme.txt) – 10 marks

#### Project presentation (15 marks)

* Demo – 5 marks
* Project Walkthrough / Discussion – 10 marks

## Final Word

Please contact the lecturer in case any aspect of this assignment is not clear to you. Have fun!