# CSE5 ICE Assignment 2019

# V 1.0

Due:
Part A – (20% overall) April 29th 12PM
Part B – (10% overall) May 27th 12PM

## Introduction:

The intention of ICE is to prepare you for industry as a junior web developer. We have covered fundamental and topical material in this subject to aid you in this endeavour. The employment market for graduate level front-end developers is strong, however entry is very selective. To this end, we have designed an assignment to give you experience on current industry relevant technologies and to assess you based on expectations a prospective employer would have.

In this assignment, you will have to prepare yourself for a quantity of self-directed study and experimentation. As front-end development is such a fast-moving area, the ability to research and implement current and emerging technologies is critical. At the conclusion of this assessment item, we hope you will be proud of your product and will cite it in future job applications.

## The task:

We live in the sporting capital of Australia, perhaps the world, sports news is a big area of online interest and you will be focusing on it. So far this semester we have looked at HTML5 and generic templates for various categories of online sites, in this assignment we will look at sports news with a heavy emphasis on delivering an enhanced user experience on the client side. We will focus on AFL (Australian Football League). You will use the single page application (SPA) paradigm to implement a league/team explorer web application.

## Data Sources:

In this assignment, you will explore sports data using an API on Squiggle. Understanding and working with API's is a skill that you need to demonstrate here and in the workplace. Take some time to understand it and try the examples. Note we expect you to use your ingenuity in figuring out the API.

## Requirements (user stories):

The assignment shall produce a single page application that will allow the user to explore the performance of their team with respect to other teams in the league. The application must incorporate these user stories and have a selected team marked as the "favourite".

"As a fan, I want to see the prediction that my team will win their next game"

"As a fan, I want to see the head-to-head games and if available, results between my team and my team's rival <..> this season"

"As a fan, I want to see opponent and games details for the next 5 matches my team will play"

"As a fan, I want to see all the games and results so far this season for my team"

[challenging] "As a fan, I want to see the games that are playing at the closest stadium to my current location"

These are 5 user stories that are expected to be implemented, we then require you to implement 3 additional of your choosing, grades will be allocated for complexity and functionality.

Data retrieval can be enacted by using the API, however, the visualisation is up to you. Points will be awarded for creativity in the display, i.e. don't just output plain text or a table to the client. Emphasis should be on interactivity, originality and a great user experience.

## Technologies:

Modern web development is all about adapting to new frameworks and technologies to implement the richest experience to the client. These have to be learnt and experimented with proactively in order to stay competitive.

The mandatory technologies we expect to see, include

- The use of BitBucket as a repository
- Angular Single Page Application (SPA)
- The app must be responsive in design to a set of different devices, desktop and mobile
- The deployment of your web app to Heroku, else to your La Trobe server account or other provider

## Assessment Procedure:

This 2 part assignment comprises 30% of your subject grade. CSE2/CSE5 ICE students **cannot** mix in the same team. Team size is capped at 3 team members, we will allow smaller teams (2 people), however, we strongly advise against this. If you do decide to work as a pair, you accept all responsibility as there is no marking consideration for different sized teams.

The deliverables will be graded according to the scheme over the page.

| Criteria | Due Date | Weighting |
|---|---|---|
| Design & Planning Report – Submit via LMS<br>- A detailed survey of other competitor sites (include critical analysis of their interface and how that guides your design decision (positive/negative)<br>- Outline the tech stack and justify decisions<br>- Wireframe the UI (detailed interface mockup)<br>- Present working API usage examples to support your mandatory user stories, this will be in the form of working code snippets (2.5 per user story) *Note: these don't have to be integrated into your final solution*<br>*Note: Present the use of Geolocation as part of the user story* | April 29th 12PM | 7.5%<br>12.5% |
| Solution deployed on a cloud provider (.5% for Heroku, .25% for other cloud provider, 0.1% for La Trobe CS Account) | May 27th, 12PM submission via the LMS and execution test in your lab class | .5% (max) |
| Mandatory user stories integrated | | 2.5% |
| 3 additional user stories implemented & integrated | | 1.5% |
| Revision control system used appropriately | | 1% |
| Code Quality (1%) / Use of Frameworks (1.5%) Angular, Bootstrap | | 2.5% |
| Final product report – Submit via LMS<br>- End system design and changes documented from first report<br>- Final UI Wireframes<br><br>Execution presentation with the tutor in week 12 lab class | | 2% |

As you will note, the user stories are allocated the majority of the grades, this covers implementation completeness and correctness. The 2.5% allocated to Code Quality / Use of Frameworks is a scaling measure to award marks to teams who implement best practice modern methodologies.