

COSC2675 Rapid Application Development

Computer Science and Information Technology
School of Science, RMIT

Assignment (STAGE 1) Semester 1 2019

Introduction

This assignment is worth **30%** towards your final grade. You are required to develop a web application specified below. It is designed to:

- Practise your knowledge of Rails development
- Practise testing and debugging

This is a group assignment. A group should not have more than 2 members. Individual submission does not receive any extra marks.

Note, this specification is incomplete. It is to simulate real world scenarios as clients often do not know exactly what they want. Your prototype would inspire them so they will come up with more ideas.

In stage 2, more specifications will be provided with assessment details. Your stage-1 prototype is basic but functional.

You are required to demo your prototype **individually** in week 8.

Academic Integrity

The assignment must be your own work although no submission is required in this part.

No marks will be awarded for any parts, which are not created by you. More on <http://www.rmit.edu.au/academicintegrity>.

Plagiarism is treated very seriously at RMIT. Plagiarism includes copying code directly from other students, internet or other resources without proper reference. Sometimes, students study and work on assignments together and submit similar files which may be regarded as plagiarism. Please note that you should always create your own assignment even if you have very similar ideas.

Plagiarism-detection tools may be used for all submissions. Penalties will be applied in cases of plagiarism.

Client Request

This assignment is developed based on the following fictitious message from the school admin team.

Dear Andy

Our school is thinking of building a course management website to help staff organize existing courses and propose new courses. RAD students may be able to help as everyone is saying they know how to quickly build a good online application from scratch.

We don't have anything formal yet. Our admin team of course want a site, which is easy to use and has good look-n-feel. People with a proper RMIT email address should be able to register to be a user. Do you think we should only allow registered users to create, update and remove course content? Viewing the courses should not be a problem. Mmm... it would be nice that every course has a picture. Is that possible to thumb-up thumb-down a course?

Can your team put something together first, so I can show to my team for feedback and discussion?

Thank you and talk soon.

Based on the above email, your task is to build a quick prototype. The following screenshots are indicative. You can make necessary adjustment to improve the design. Your application can have different look-n-feel, but should maintain at least the same quality, e.g. using Bootstrap.

Part 1 Guest Page

The homepage of your application may look like this sample page. It should have a “Home” button to always bring your application to this page. It should have a signup button to allow new users to register. Existing users should be able to login through this page as well.

The screenshot shows a web application interface. At the top, there is a blue header bar with the text "YOURCOURSE" on the left and three buttons: "Category", "Locations", and "Log In". Below the header is a large light gray section with the heading "Welcome to Your Course App" and a subtext "This is the home page for the RAD Assignment 2". A red "Sign up now" button is centered below the heading. Below this section are two columns of links. The left column is titled "View Course as Guest User" and includes a link "Browse all courses". The right column is titled "Sign in to your account" and includes a link "Log in to your account". At the bottom of the page is a footer section with four columns: "Contact us" (with fields for Name, Email, and Message), "General Inquires" (with contact details for Andy Song, Junliang Jiang, and Ali), "Useful Links" (with links to RMIT Course, RMIT Help Desk, and RMIT International), and "Media" (with social media links for Youtube, Twitter, Facebook, Instagram, and Skype). The footer also includes contact details: Tel: 0123456789, Fax: 0123456, and email: junliang.jiang@rmit.edu.au.

YOURCOURSE Category Locations Log In

Welcome to Your Course App

This is the home page for the RAD Assignment 2

[Sign up now](#)

View Course as Guest User
Browse and view courses as a guest and sign up later
[Browse all courses](#)

Sign in to your account
Update your courses, rate courses, view coordinator informations
[Log in to your account](#)

Contact us
Name
Email
Message
[Send](#)

General Inquires
Andy Song
Junliang Jiang
Ali

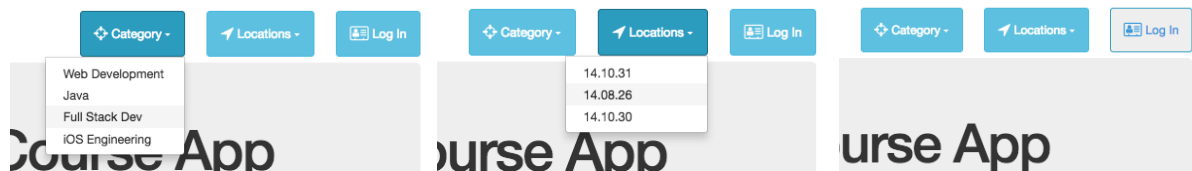
Useful Links
RMIT Course
RMIT Help Desk
RMIT International

Media
Youtube
Twitter
Facebook
Instagram
Skype

Tel: 0123456789
Fax: 0123456
junliang.jiang@rmit.edu.au

This page should have a footer similar to above example. It should allow guests sending a simple message to the webmaster. It shows some static links such as contact details, useful links and social media. Social media links show icons when mouse hovers over them (as shown below)

The homepage should have three buttons in the header, Category, Location and Login. The first two buttons support dropdown menu. They all change appearances when a mouse over occurs.

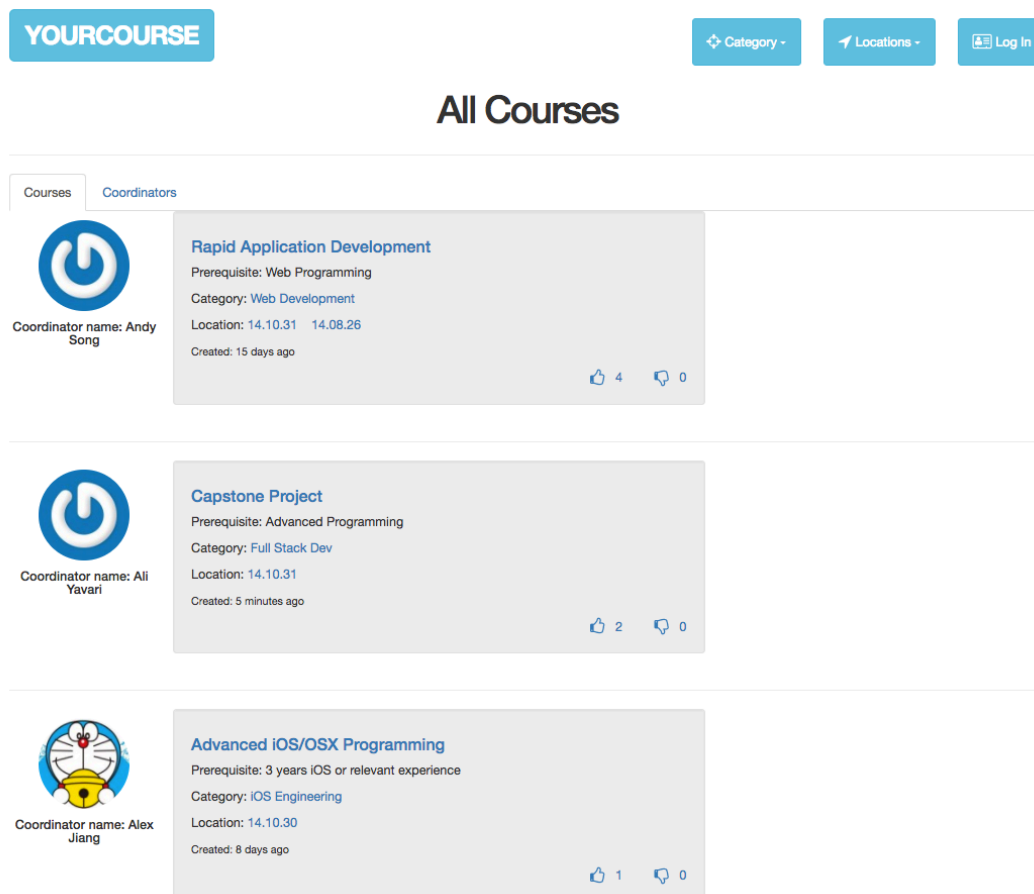


Guests can view all courses by click the “Browse all courses” button. Each course should show its name, prerequisite, category, location and how long it was created.

Each course may have multiple categories e.g. “Web Development” and “Full Stack Dev”. One course may also have multiple locations.

Guests can view the number of thumb ups and downs. However they can NOT vote.

Each coordinator has a Gravatar profile.



The course view should support a coordinator tab to list all course coordinators.

YOURCOURSE

Category -

Locations -

Log In

All Coordinators

Courses

Coordinators



Coordinator name: Andy Song



Coordinator name: Alex Jiang



When a certain category is selected, then only the courses under that category will be listed. The following example shows all courses under “Web Development”.

Similarly guests can select a location to list all courses running at that location.

YOURCOURSE

Category -


Locations -

Log In

Courses scheduled in location 14.10.30

Courses

Coordinators



Coordinator name: Andy Song

Java for Programmers


Prerequisite: Software Engineering Fundamentals

Category: [Java](#)

Location: [14.10.31](#) [14.10.30](#)

15 days ago

0 1



Coordinator name: Andy Song

Advanced Programming


Prerequisite: Basic Programming

Category: [Java](#)

Location: [14.08.26](#) [14.10.30](#)

15 days ago

0 0



Coordinator name: Alex Jiang

Advanced iOS/OSX Programming

Prerequisite: 3 years iOS or relevant experience

Category: [iOS Engineering](#)

Location: [14.10.30](#)

8 days ago

The category and location information of a course should be clickable and can act like the category and location buttons shown above.

Part 2 Signup and Login/Logout

When a user clicks sign up, proper validation should be in place. See the error messages below. Only a RMIT staff, who has a <first name>.<last name>@rmit.edu.au email address, is able to sign up.

YOURCOURSE

Category -

Locations -

Log In

Coordinator Register

Please correct the following errors:

- Name can't be blank
- Name is too short (minimum is 4 characters)
- Email can't be blank
- Email is too short (minimum is 4 characters)
- Email Registration only open for RMIT staff
- Password can't be blank
- Password must contains at least a lowercase letter, a uppercase, a digit, a special character and 8+ characters

Name

Email

Password

Register

Contact us

General inquiries

Useful Links

Media

Name

Email

Andy Song

Junliang Jiang

Ali

RMIT Course

RMIT Help Desk

RMIT International

Youtube

Twitter

Facebook

For an existing user, a temporary “login successful” message should be displayed. All the courses will also be displayed to these authorized users.

YOURCOURSE

Category -

Locations -

New Course


All Yavari -

Log in successfully !

All Courses

Courses

Coordinators



Coordinator name: Andy Song

Rapid Application Development

Prerequisite: Web Programming


Category: [Web Development](#)

Location: [14.10.31](#) [14.08.26](#)

Created: 16 days ago

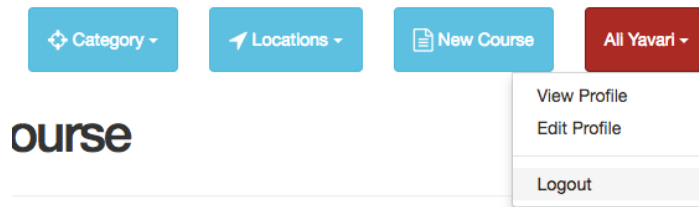
4

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Capstone Project

When logout, a temporary message is also displayed. The application returns to the guest mode.



The “Home” button for a logged-in user should always bring your application to the list of all courses, not to the homepage for guests.

You have logged out !

There is no submission for Stage 1

Individual lab demo at Week 8

Additional Notes

- 1: Your application is expected to be production ready. Proper test and data validation should be embedded in your application.
- 2: Stage-2 specification will be available “once we received new instructions from our client”.
- 3: You are suggested to track the time you spend on this task.
- 4: Your code should be hosted on **bitbucket**. The code repository should be in sync with your development.
- 4: Only the following GEMS should be used in your application.

```
gem 'rails', #####
gem 'bootstrap-sass', #####
gem 'puma', #####
gem 'sass-rails',
gem 'uglifier',
gem 'coffee-rails',
gem 'jquery-rails',
gem 'turbolinks',
gem 'jbuilder',
gem 'carrierwave',
gem "mini_magick"
gem "font-awesome-rails"
gem 'bcrypt',
```