# Major/Minor Project (MMP) Selection Form

Please complete the following details and submit your form to Blackboard. You should submit your form by **5pm on Friday 6th December 2013**.

## Your Details

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| **Forename** | Alex |
| **Surname** | Roan |
| **User Id** | 102562662 |
| **Module Code**  (select one) | CS39440 |
| **Degree Study Scheme**  (code and title) | G601 MEng Software Engineering |
| **Planned activity after degree**  (e.g. masters course, job) | Masters Year |

## Project Selection

In order of preference, I am interested in the following three projects.

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| --- | --- | --- |
| **Order** | **Suggested By** | **Title and brief description** |
| 1 | Myself | Carpooling |
| 2 | Andrew Starr | Tourist Attraction Catalogue |
| 3 | Richard Jensen | Android Game: NAC2 |

**Notes**:

* You can only select one project suggestion from any one staff member.
* If you are proposing a project as one of these projects, you must also complete the details in the remainder of this form.

## Student Project Proposal

If you have listed your own project suggestion, complete this section to provide further details about the project.

Which staff member have you discussed this with? Neal Snooke

Did the staff member agree that it was a suitable topic to propose? Y

Describe the project in up to 300 words.

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| A carpooling website and mobile application aimed at students.  When the user signs up to the service, they enter their basic information along with which university they attend and where they're from (e.g. in my case Aberystwyth University and Cardiff). They enter whether they have a car or which modes of transport they usually take to and from home and uni, how often etc.  Users can post up "Rides" to advertise when they are travelling somewhere via car or other mode and are looking to share the cost. The service would map a route and suggest to other users who are looking to travel with them and pay for petrol on the way.  The same goes for people who need a ride. When searching for a ride the server would intelligently suggest options depending on the rides posted by other people (perhaps from other universities where the route passes by). Google maps would be integrated into the service for route generation and suggesting rides for people.  The mobile app could integrate into contacts, calendar and other services like facebook. |

If this project involves ideas or work from any 3rd party company, e.g. your industrial year employer, enter the name of the company:   
  
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Discuss which aspects of your degree scheme this project builds upon?   
(up to 300 words)

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| It builds upon the integration of multiple technologies with interaction between them to produce a streamlined solution. Creating a maintainable data storage and manipulation system and gathering data regarding the user’s preferences will provide with the challenge of intelligently predicting their movements and suggesting possible options for others. Integration with Google, mobile application writing and advanced web technologies. |

What investigation, if any, have you already undertaken into this project?   
(up to 300 words)

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| I have considered technologies I could use for the back end server and the methods in which to intelligently produce results based on information gathered by users. I’ve also investigated the google maps API for integration within the website and mobile app. |

What are the main technical challenges in this project?   
(up to 300 words)

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| The main challenges will be in developing the intelligent suggestions to users based on their preferences and data, mapping routes and locations along the routes in which users could stop and pick up other users travelling in the same direction from their own preferences, suggesting these options to other users who may be travelling in the same direction. Future dates such as Christmas break, will provide times for suggesting travel option for example, as well as users posting their own rides or when they need a ride as and when they want. Integrating the app with other services within the user’s phone such as contacts, calendar and facebook will also be challenging. Integrating the data taken from them into the main database could provide a window into the user’s future plans and predict future movements. |