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| **Expression of Interest** | | |
| **Project Title** | Support Engineers Rostering | |
| **Organisation or Supervisor** | Capital One | |
| **Contact person** | Madhu Prashanth | |
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| **Team Members** | | |
| **Name** | **Email Address** | |
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| **Description of Team Skills (You must provide clear evidence of to what extent the team has the Highly Desirable and where possible the Desirable Skills detailed on the Original Project form)** | | |
| **Project Motivation:**  Our team’s interest towards this project has stemmed from the fact that presently the task being carried out by the manager could be redundant and time consuming. Creating a web application which automatically works out the roster would be much more beneficial, save the manager a lot of time and also provide better results.  **Project Understanding:**  The objective of this project is to develop an auto-rostering website for Capital One's engineers. This system must obey some certain criteria, sudden changes should be handled smoothly and the website should be able to generate a report on engineers' on-support times. An auto-email system could be considered as an extension.  **Team Description:**  All of our team members have a great deal of experience in website construction and UI design. Each one of us has developed our own website last semester and our team leader Kejia has contributed to website development in a business environment.  Most of our team members have developed applications on different platforms in Java. Liam has created several applications in a variety of different programming languages. Kejia and Tajin has developed some mini games for PC in Java and C.  Each one of our members has experience of using a modern rostering system to generate a rota in our study or internship period (academic or business). Gurjyot has worked in a company which applied a similar rostering system. As a result, she has a better perspective of developing the entire system.  We have learned Artificial Intelligence last semester and we hope we could apply what we’ve learned, such as heuristic search, to this system. We have a rough strategy regarding evaluating the performance of each employee according to their status to generate the rota efficiently.  Each one of us has learned agile development last semester and are used to working in teams. Kejia has worked with other programmers in a business and campus environment. Tajin currently works in campus IT service, so she is good at solving problems with other team members together.  We consider ourselves as the most powerful candidate of this project because we have met most of the requirements and have a clear plan for this project. And we ensure you that we will pour one hundred percent of effort on this project.  **Highly desirable skills and desirable skills**  *Programming in suitable languages for website producing; Experience in website producing –*  All of our team members have built a functional website independently last semester  *Programming produce applications in Java; Experience in Java programming -*  Every member of our team has developed several programs in Java and other programming languages.  *Applying simple rostering or scheduling software in academic or business environment; Experience in using rostering software -*  Most of our team members have experience in manipulating rostering software such as Time Tree mobile applications  *Knowledge of artificial intelligence such as heuristic search; Experience of applying AI methods –*  Each member of our team has studied AI last semester and have a good understanding of applying AI to real-world problems such as optimisation  *Knowledge of agile development and version control; Experience with agile development and Git –*  All of our team members have used git in a previous group work project and some of them have applied git to a business environment; all of us have a good understanding of software engineering  **Preliminary Research:**  After some research done by our team, there exists four main obstacles to conquer:   1. According to some existing examples, we want to develop two main websites. An administrator website for employee scheduling, and an employee website for employees self-checking. Although this method increases our workload, the clients could receive a better UX. 2. We would like to challenge ourselves by applying AI methods to automatically complete the employee rostering. It could be achieved by several different search methods. We would test each one of them and try to figure out the most intelligent one. 3. We would like to consider adding an automated email system to email the manager, meaning that they would receive the rota instantly. This is a feature that would be considered if we had time at the end of the project. 4. (write about what we found out researching other rostering software)   (Max 500 words) | | |
| **Date of Submission of EoI** | |  |
| **Date of Pitch** | |  |
| **Notification of award** | |  |

**Please make sure to attach one page CVs for each member of the group.**