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| Expressions of Interest | |
| *Project title* | Robot Day management system |
| *Organisation or Supervisor* |  |
| *Contact person (sponsor)* | Liz Felton |
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| *Team Number* | Group 45 |
| Team Members | |
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| **Bid Summary** | |
| *(Consider motivation, understanding of the brief, preliminary analysis, project management, team skills, project requirements – 750 words max)* Project Overview and Motivation This project proposes the design and implementation of an **event management system for Robot Day**, a charity organization dedicated to promoting science, technology, engineering, and mathematics (STEM) engagement for children and families. Robot Day’s outreach events depend on collaboration between event managers, exhibitors, and volunteers, yet their current management processes are largely manual and fragmented across different platforms. This results in inefficiencies, data duplication, and communication issues.  The motivation behind this project is to develop a **centralized, secure, and user-friendly management system** that streamlines the process of planning and running Robot Day events. People with different identities will see different interfaces after log in. By enabling exhibitors to submit their requirements directly through an online interface and allowing event managers to coordinate logistics in real-time, the system aims to improve efficiency, accuracy, and transparency.  This project builds upon the work completed by the 2024 COMP2002 cohort, who established an ontology and a set of system requirements in collaboration with Robot Day. The current team’s task is to extend that foundation into a fully functional, deployable software system, integrating database design, role-based access control, and a user-facing interface tailored to different stakeholder roles. (… team skills to be written here Understanding of the Brief The system must enable Robot Day to **create, configure, and manage events** efficiently, while supporting secure, role-based access for different types of users:   * **Event Managers:** responsible for creating and managing events, assigning volunteers, approving exhibitor requests, and overseeing logistics. * **Exhibitors:** external partners who register to participate in events, submit exhibit details, and communicate specific technical or logistical requirements. * **Volunteers:** individuals who support event delivery and require access to schedules, tasks, and communication tools.   The system will encompass the **full software-user lifecycle** — from event creation to post-event analysis. This includes setting up event parameters, handling registrations, assigning roles, managing requirements and facilities, tracking progress, and archiving data for future events. Additionally, the solution must comply with **role-based security concepts** as defined in the ontology and requirements documents provided. This ensures that users only access data and functionality relevant to their roles, thereby maintaining privacy and operational integrity.  (…understanding of the document from last year’s COMP2002 cohort can be written here Preliminary Analysis From the provided documentation and project brief, the system will require three primary components:   1. **Database Layer:**    * A structured database will be designed to store data including users, events, exhibitors, volunteers, and facilities. The database architecture should guarantee the efficiency and scalability to handle large data volumes.    * Role-based access control (RBAC) will be implemented to manage permissions.    * We will keep the data accurate implementing basic rules and normalization, and insure the system is easy to manage 2. **Front-End System:**    * A web-based interface will provide customized dashboards for different user roles.    * The interface will allow event managers to create and edit events, view exhibitor submissions, and assign volunteers.    * Exhibitors will use the same portal to submit exhibit proposals, update details, and track their approval status.    * Volunteers will access schedules, assigned tasks, and communication tools.    * Accessibility, usability, and responsiveness will be prioritized to ensure inclusivity across devices. 3. **Lifecycle Management:**    * The system will support the entire event lifecycle, from initial setup to post-event reporting.    * Archiving and analytics functions will enable data-driven evaluation of event success.  Project Management Approach The development process will follow an **Agile methodology**, enabling iterative progress, stakeholder feedback, and adaptability to changing requirements. The project will be divided into **four major phases**:   1. **Planning and Requirements Validation:** Reviewing the previous documentation to confirm functional and non-functional requirements with Robot Day representatives. 2. **Design and Development:** Constructing the database schema, designing the interface, and implementing role-based portal. 3. **Testing and Evaluation:** Conducting comprehensive testing — including unit, integration, usability, and security tests. 4. **Documentation and Deployment:** Producing technical and user documentation, training materials, and deployment guidelines to ensure long-term maintainability.   Version control (e.g., Git), project management tools (e.g., Trello or Jira), and regular sprint reviews will be used to track progress and maintain transparency. | |
| *Date of Submission:* | 17th of October 2025 |
| *Date of Pitch:* | 23th of October 2025 |
| *Notification of award:* | 24nd or 27th of October 2024 |

For further information on this proposal, the team representative should in the first instance e-mail the lead contact stated above at the e-mail address provided.