**UNIVERSITY OF SARGODHA**

**WEB-SEMANTIC**

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**CLASS:**

CLASS: BSCS 8TH SS2

**ASSIGNMENT SUBMITTED TO:**

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**1. Purpose**

This ontology is developed to represent the process of the Final Year Project (FYP) within the Computer Science Department. It provides a structured and unambiguous description of each stage in the FYP process to improve clarity and management.

**2. Scope**

The ontology encompasses all major phases, roles, deliverables, and assessment components of the FYP lifecycle, beginning from the initiation phase to final project closure.

**3. Intended Users**

* Students
* Supervisors
* Project Coordinators
* Department Staff

**4. Intended Uses**

* **Students**: To gain a comprehensive understanding of FYP phases and requirements.
* **Department**: To effectively communicate the process to students across academic sessions.
* **Supervisors & Project Managers**: To monitor student performance and assess project quality.
* **General Use**: To eliminate confusion and assist in successful project execution and documentation.

**5. Functional Requirements: Competency Questions**

**5.1 Students**

* What topic have you chosen for your FYP?
* Is participation in the FYP mandatory?
* Which subjects or concepts from your coursework will be reflected in the project?
* What areas of Computer Science can be selected for the FYP?
* Are students free to choose any technical domain?
* What skills, obtained during the degree, are needed for the project?
* What forms of documentation are required?
* Which documents must be prepared during different stages?
* What are the deadlines for submitting each document?
* At what stage will the project undergo evaluation?
* Who will conduct the project defense (viva)?
* What workflow should be maintained? (e.g., from planning to documentation, then development, assessment, and deployment)
* Who are the evaluators? (e.g., internal/external faculty members)
* How can a supervisor effectively guide a project? (e.g., by monitoring semester-wise progress and providing timely support)

**5.2 Department**

* What stages are involved in the FYP procedure?
* In what ways does a defined process benefit participants?
* How does it simplify the understanding of the project for students?
* What is the department's responsibility during the FYP cycle?

**5.3 Supervisor**

* What are the duties of a supervisor in the FYP?
* How can these responsibilities be fulfilled more efficiently?

**5.4 Project Manager**

* What are my key tasks as a project manager?
* What parameters should be used to assess students?
* What factors should influence the evaluation process? (e.g., use of technology, quality of work, effort invested)

**6. Non-Functional Requirements**

* Strict adherence to project deadlines.
* Detailed and structured documentation is essential.
* The project must showcase originality and technical innovation.

**7. Pre-Glossary of Terms**

**7.1 Terms Derived from Competency Questions**

* **FYP (Final Year Project)**  
  A capstone project undertaken by final-year students, demonstrating the integration of knowledge, skills, and practical experience gained throughout their studies.
* **Project**  
  A structured set of tasks with defined goals, timelines, and deliverables, aimed at addressing a specific problem or opportunity within a chosen domain.
* **Domain**  
  The specific area of study, industry, or technology to which a project belongs, defining the scope and focus of the work.
* **Skills**  
  The technical, analytical, and soft abilities required to successfully complete a project, including programming, communication, problem-solving, and project management.
* **Documentation**  
  Comprehensive written records of project activities, including plans, designs, reports, and evaluations, ensuring clarity and traceability throughout the project lifecycle.
* **Evaluation**  
  The systematic assessment of a project’s quality, performance, and impact against predefined criteria, often conducted by supervisors or external examiners.
* **Viva**  
  An oral examination where students present and defend their projects before a panel, demonstrating their understanding and mastery of the subject.
* **Implementation**  
  The process of building, coding, and integrating various components of a project to achieve the intended functionality and objectives.
* **Deployment**  
  The act of launching a completed project into a live environment, making it accessible to intended users or systems.
* **Testing**  
  The systematic validation of a project's components to ensure functionality, performance, security, and reliability, identifying and resolving any defects.
* **Supervisor**  
  An academic mentor responsible for guiding and supporting students throughout their project journey, ensuring alignment with academic standards.
* **Student**  
  An individual enrolled in a program, undertaking projects to gain practical experience and demonstrate academic competencies.
* **Department**  
  An academic division within a university, focused on a specific discipline, managing related projects, courses, and research activities.
* **Project Manager**  
  An individual responsible for planning, organizing, and overseeing the execution of a project, ensuring timely delivery and quality outcomes.