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Subject: Semantic Web

Ontology Requirements Specification Document (ORSD)

Domain: Final Year Project (FYP) Process in the Department of Computer Science

1. Purpose

This document details the operational necessities for overseeing the Final Year Project (FYP) procedure within the department. It is designed for administrators, faculty supervisors, and students to guarantee that the process is uniform, effective, and clear.

2. Scope

This covers all stages of the FYP process including proposal submission, evaluation, allocation of supervisors, project execution, progress monitoring, and final assessment.

3. Implementation Language

The ontology will be implemented in OWL 2 DL (Web Ontology Language) using tools such as Protege.

4. Intended End-Users

-Students
-Departmental Project Coordinators.
-**Project Managers**
-**Supervisors**
-**Evaluation Panel**

5. Intended Uses

-To give students a clear insight into the FYP workflow and their responsibilities.
-Guides students in formulating project ideas, writing proposals, and understanding approval criteria.
-To help supervisors and project managers effectively monitor and support student development.
-To serve as a guideline for proper documentation and evaluation criteria
-To enable the use of automated systems for monitoring, assessing, and providing support.
-Provides a standardized model to ensure every FYP follows the same guidelines and deadlines.
-To maintain a record of departmental practices and assigned roles.

6. Ontology Requirements

6.1 Non-Functional Requirements

- NFR1: The ontology must be scalable and extendable for future enhancements.
- NFR2: Should be platform-independent and integrable with web-based FYP systems.
- NFR3: It should support reasoning over timelines, deadlines, and roles.
- NFR4: It must maintain clarity and unambiguous representation of concepts.

6.2 Functional Requirements:Group of Competency Questions (with Answers)

CQG1:Student

- **What is a Final Year Project (FYP)?**

A Final Year Project is a compulsory academic assignment that reflects the student's ability to apply theoretical knowledge in a practical setting.

- **Is an FYP required for all students?**

Yes, completing an FYP is mandatory for students enrolled in Computer Science programs.

- **Which areas of Computer Science are suitable for FYP topics?**

Projects can be chosen from fields such as Artificial Intelligence, Web Technologies, Cloud Solutions, Cybersecurity, Data Science, and more.

- **What skills and concepts from coursework are useful in the FYP?**

Students will apply competencies in coding, system architecture, databases, artificial intelligence, report writing, and project coordination.

- **What documentation must be submitted during the FYP?**

Essential documents include the Proposal, Software Requirements Specification (SRS), Design Document, and Final Project Report.

- **What is the schedule for key FYP milestones?**

The timeline typically includes: Proposal Submission → Mid-Term Review → Final Submission → Viva Presentation.

- **On what basis is the FYP evaluated?**

Assessment focuses on originality, completion level, technical depth, documentation quality, and presentation performance.

- **Who is responsible for evaluating the FYP?**

Both internal and external examiners participate in evaluation, including the assigned supervisor and designated viva panel.

- **What are the main phases from project proposal to deployment?**

The process includes: Idea Proposal → System Design → Development → Testing → Report Writing → Assessment → Deployment.

- **How should I prepare for assessments and testing?**

Preparation involves adhering to deadlines, practicing presentations, and verifying that the system works as intended.

- **What kinds of support are available for FYP students?**

Support resources include supervisor guidance, departmental software/tools, laboratory access, grading rubrics, and instructional manuals.

CQG2: Department

- **What is the department's function in managing FYPs?**

The department assigns appropriate supervisors, facilitates resources, and oversees the entire FYP workflow.

- **How does the ontology assist students and staff?**

The ontology provides a structured view of roles and expectations, minimizing misunderstandings and improving communication.

- **How is student progress tracked throughout the FYP?**

Progress is documented through periodic submissions, evaluations, and monitoring tools.

- **What resources should the department allocate for FYPs?**

Necessary resources may include evaluation committees, lab access, potential funding, and standardized templates.

CQG3: Project Manager

- **How are FYP projects distributed among students and faculty?**

Project assignments consider student interest, domain relevance, and supervisor availability.

- **How are milestones managed to ensure timely progress?**

Milestone completion is monitored using schedules, automated reminders, and progress reports.

- **Which tools help evaluate project status and performance?**

Key tools include management dashboards, milestone checklists, and structured feedback forms.

CQG4: Supervisor

- **What are my duties as an FYP supervisor?**

Supervisors are responsible for providing technical mentorship and ensuring timely progress toward project goals.

- **How do I effectively monitor and support students?**

This involves regular check-ins, reviewing milestone completions, and using tracking systems.

- **How should feedback and evaluation be delivered?**

Offer feedback based on evaluation rubrics, suggest actionable improvements, and provide technical input

CQG5: Milestones and Evaluation

Q18: What are the key FYP milestones? Proposal defense, mid-evaluation, final report submission, and viva/presentation.

Q19: Who evaluates the project at each stage?Assigned project managers, often including the supervisor

Q20: What documents are reviewed in evaluations :Documents (Proposal,SRS,Design documents specification) implementation proof (code/screenshots), and demo videos if applicable.

7. Pre-Glossary of Terms

7.1 Terms from Competency Questions (with frequency)

Project	18
Supervisor	12
Student	14
Proposal	10
Evaluation	8
Report	9
Submission	10
Milestone	6
Coordinator	6
Deadline	7
Feedback	5

7.2 Terms from Answers (with frequency)

Approved	6
Submitted	8
Completed	5
Assigned	5

Evaluated	4
Rejected	3
Supervised	3

7.3 Objects (appearing in questions and answers)

- Person (Student, Supervisor,Project Manager)
- FYP Project
- Proposal Document
- Final Report
- Submission Portal
- Milestone