**ASSIGNMENT NO # 02**

**Name:**

Khansa Sarfraz

Maryam

**Roll no.:**

BSCS51F21S051

BSCS51F21S058

**Topic:**

ORSD for an FYP process in CS Department

**Title: FYP process**

**PURPOSE:**

The main objective of this ontology is to represent the process of the Final Year Project (FYP) in a Computer Science department. It must have formalization of all concepts, roles, relationships, and procedures within the FYP from proposal to testing and finalizing. The ontology is meant to facilitate automation, consistency in data, sharing knowledge, search with intelligence, and decision-making,

**SCOPE:**

This ontology represents features of the Final Year Project (FYP) process, including students, supervisors, and committee members. It covers proposal submission, approval, scheduling, evaluation phases (mid and final), report submission, and grading. It also includes tools, technologies, and domains used in FYPs. Designed with moderate detail, the ontology helps track progress, validate prerequisites, allocate resources, and generate intelligent insights such as topic trends and supervisor workload.

**IMPLEMENTING LANGUAGE:**

The ontology will be implemented using OWL (Web Ontology Language) due to its support for semantic web technologies, reasoning, and interoperability with tools like Protégé.

**INTENDED USERS:**

* Students
* Supervisors
* Professors
* Project Manager
* Developers

**INTENDED USES:**

The intended uses of the ontology include:

* Students can easily understand the process
* Making easy for department to take the project to next level by explaining it to next batch
* Supporting the development of tools for project management and tracking.
* Enabling data integration and interoperability among different systems used in project management.
* Assisting in the evaluation and assessment of student projects.

**ONTOLOGY REQUIREMENTS:**

**NON-FUNCTIONAL:**

* **Interoperability:** Must integrate with existing academic systems
* **Maintainability:** Should be easy to update for future changes
* **Scalability:** Should handle data for multiple years and students
* **Usability:** Must be understandable for non-technical users
* **Reasoning:** Should support inference and logical consistency checks

**FUNCTIONAL:**

(Compentency questions)

**Group 1: Student Information**

* **CQ1. What is the student's name?** Ali Raza; Fatima Noor; Hassan Ahmed
* **CQ2. What is the student's roll number?** BSCS51F21S058, BSCS51F21S059
* **CQ3. What is the student's email address?** ali.raza@gmail.com
* **CQ4. What is the student's batch?** 2024; 2025
* **CQ5. What is the student's current FYP status?** Approved; Under Review; Completed; Failed

**Group 2: Supervisor Information**

* **CQ6. Who is the student's project supervisor?** Dr. Muhammad Illyas ; Prof Fahad Maqbool
* **CQ7. What is the supervisor's department?** Computer Science.
* **CQ8. How many students is the supervisor currently supervising?** 2

**Group 3: Project Details**

* **CQ9. What is the title of the final year project?** Smart Traffic System; AI-based Attendance Monitoring, National Health Database
* **CQ10. What is the domain of the final year project?** Artificial Intelligence; Web Development , Andriod Development
* **CQ11. What tools or technologies are used in the project?** Python; TensorFlow; ReactJS
* **CQ12. What is the project type?** Research-Based; Product-Based; Hybrid

**Group 4: Evaluation and Submission**

* **CQ13. What is the date of the mid-evaluation?** 12th January,2025
* **CQ14. What is the final grade of the project?** A; B+; C
* **CQ15. Has the student submitted the final report?** Yes; No
* **CQ16. What documents has the student submitted?** Proposal; Mid Report; Final Report; PPT

**Group 5: Scheduling and Committee**

* **CQ17. When is the final viva scheduled?** 20th June 2025
* **CQ18. Who are the evaluators assigned for the project?** Dr. Nida Riaz; Mr. Ali Mirza
* **CQ19. What is the evaluation venue?** Room 165, CS Block

**Group 6: Trends and Statistics**

* **CQ20. What are the most popular project domains this year?** Machine Learning, Web and Andriod Development
* **CQ21. How many projects are using Python?** 2,4
* **CQ22. What is the average supervisor-to-student ratio?** 1:3; 1:5

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**Pre-Glossary of Terms**

**a. Terms from Competency Questions**

| **Term** | **Frequency** |
| --- | --- |
| Student | 5 |
| Project | 5 |
| Supervisor | 3 |
| Evaluation | 2 |
| Report | 2 |
| Schedule | 1 |
| Technology | 2 |

**b. Terms from Answers**

| **Term** | **Frequency** |
| --- | --- |
| Status | 2 |
| Grade | 2 |
| Date | 1 |
| Batch | 1 |
| Technology Name | 2 |
| Supervisor Name | 2 |

**c. Objects**

| **Object** |
| --- |
| Student |
| Supervisor |
| Project |
| Evaluation |
| Report |
| Batch |
| Technology |
| Schedule |