



DEPARTMENT OF COMPUTER SCIENCE

TECHNICAL UNIVERSITY OF CLUJ-NAPOCA

Software Design

Laboratory assignment 1

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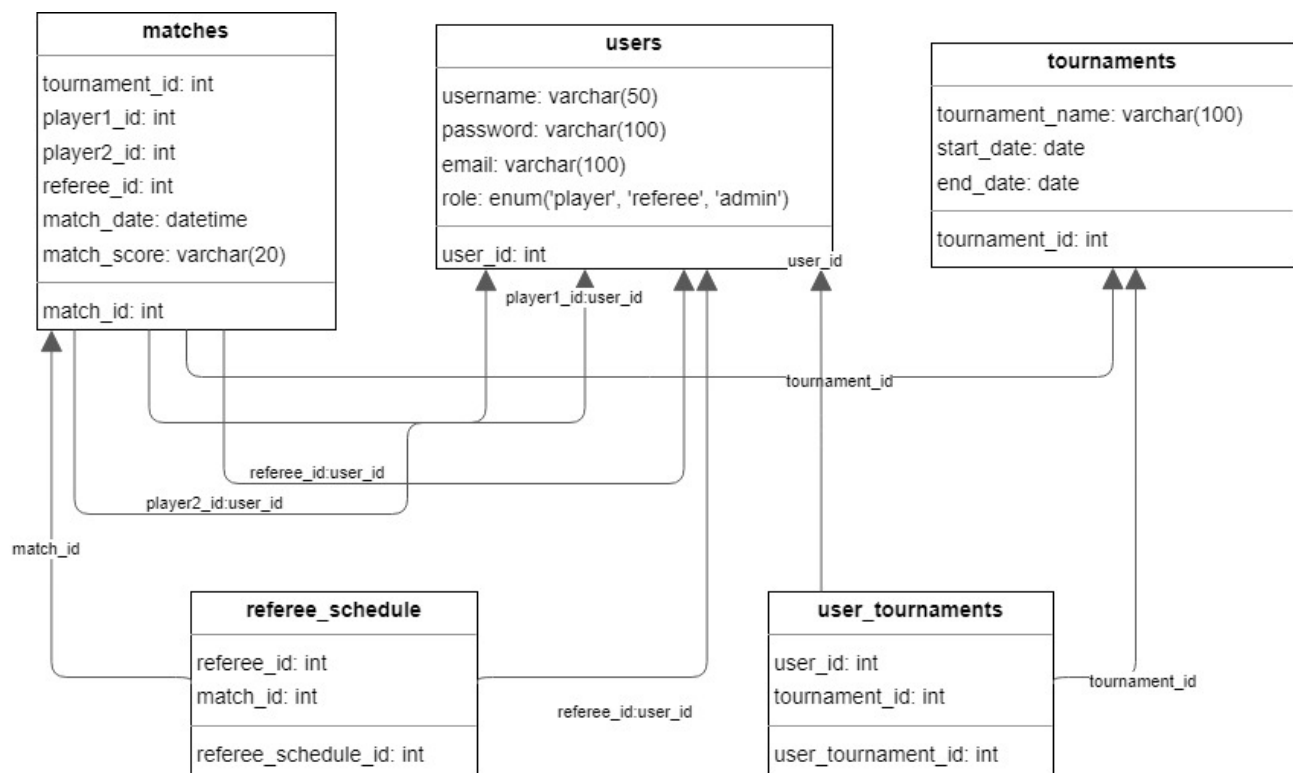
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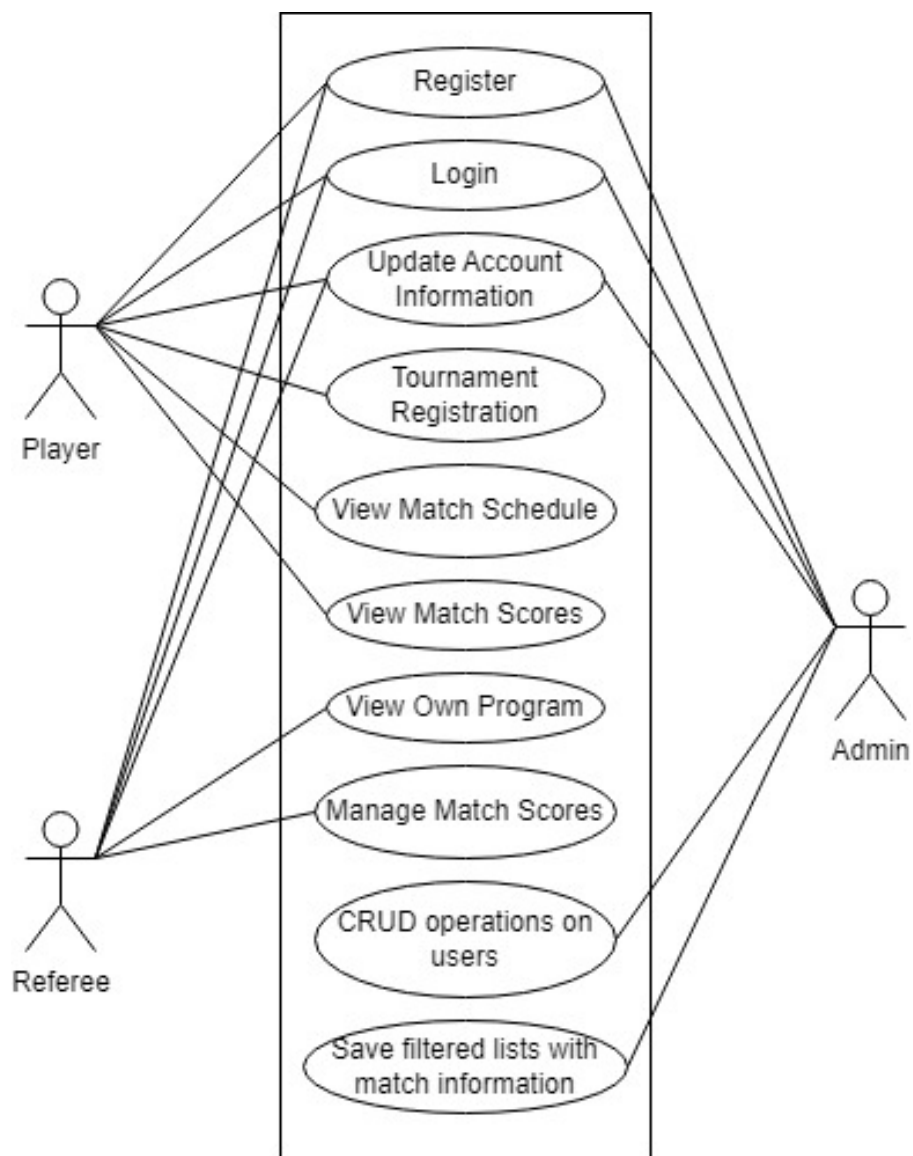
Chapter 1

Diagrams

1.1 Database Diagram



1.2 Use-Case Diagram



The diagram illustrates the architecture of a tournament management system, organized into four layers: Database Layer, Business Layer, Presentation Layer, and Persistence Layer.

Database Layer: Contains entity classes for **User**, **Match**, **UserTournament**, **RefereeSchedule**, and **Tournament**. Each class lists its attributes and relationships.

Business Layer: Contains service classes for **UserService**, **TournamentService**, **RefereeScheduleService**, **MatchService**, and **UserTournamentService**. These services implement business logic and interact with the database layer.

Presentation Layer: Contains controller classes for **MatchController**, **UserController**, **TournamentController**, **RefereeScheduleController**, and **UserTournamentController**. These controllers handle user requests and interact with the business layer.

Persistence Layer: Contains repository classes for **UserRepository**, **TournamentRepository**, **RefereeScheduleRepository**, **MatchRepository**, and **UserTournamentRepository**. These repositories manage the data storage and retrieval.

The diagram shows the flow of data and control between these layers, with solid lines representing associations and dashed lines representing dependencies.