

Diagram: Tournaments FSS related actors and registers

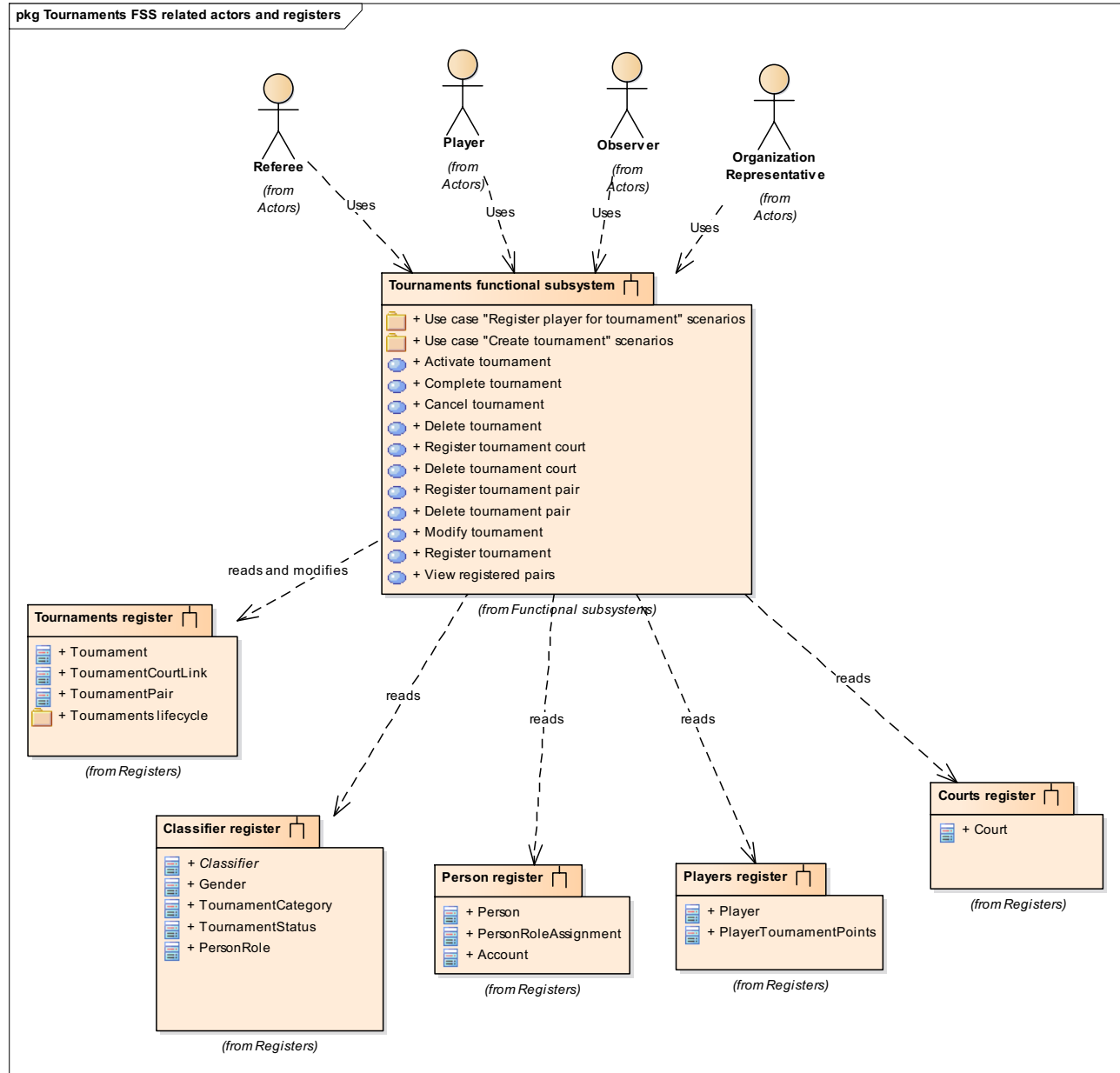


Diagram: Tournaments functional subsystem



Diagram: Register player for tournament activity diagram

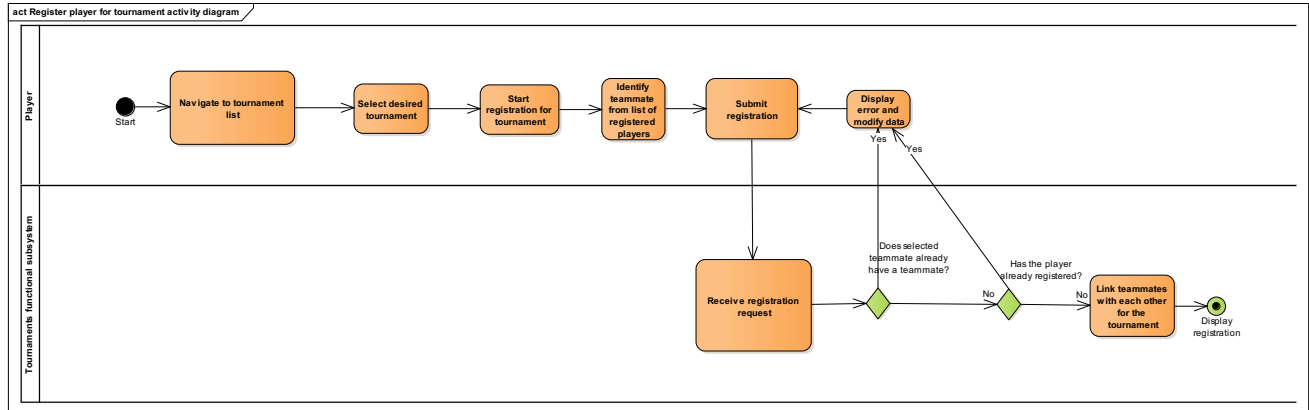


Diagram: Create tournament activity diagram

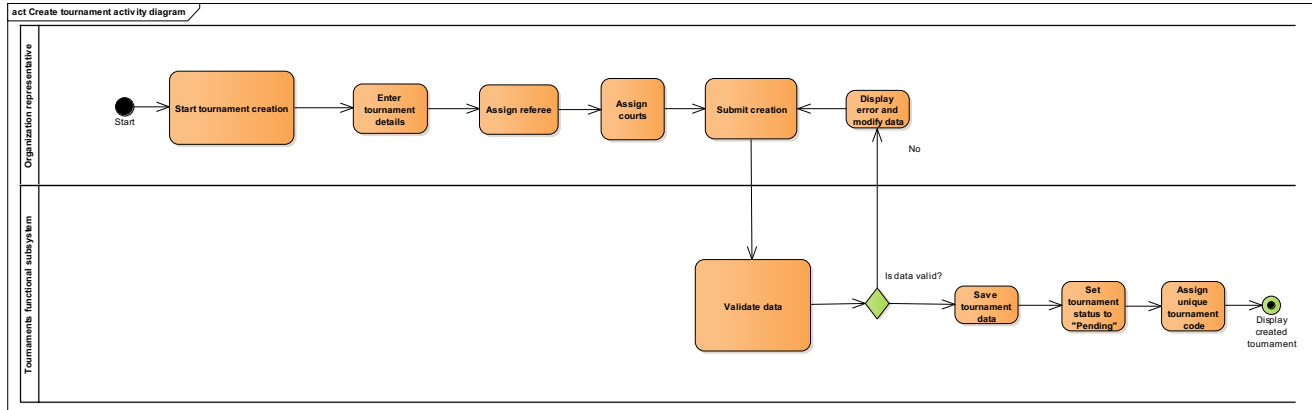


Diagram: Preliminary conceptual model

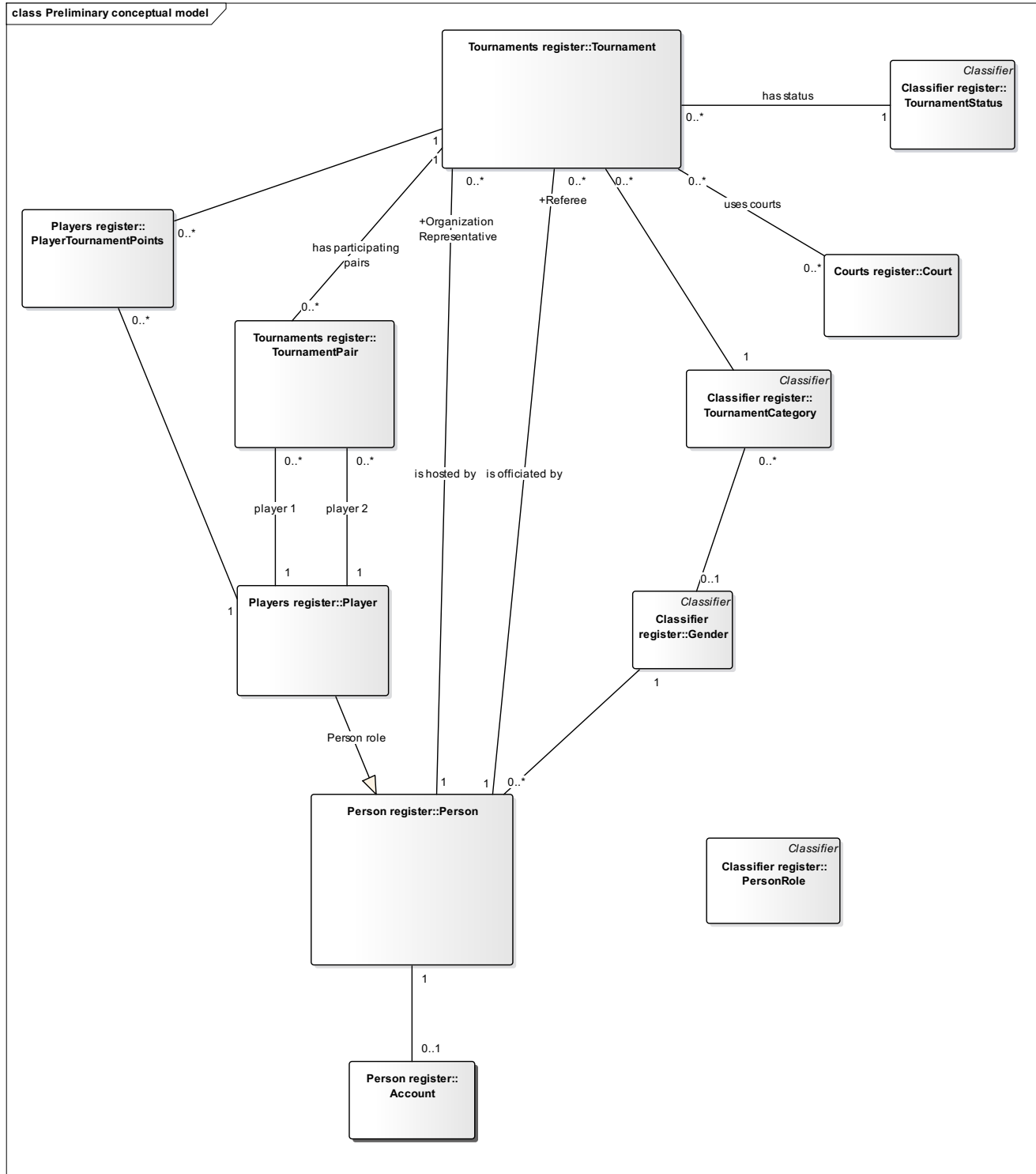


Diagram: Person register

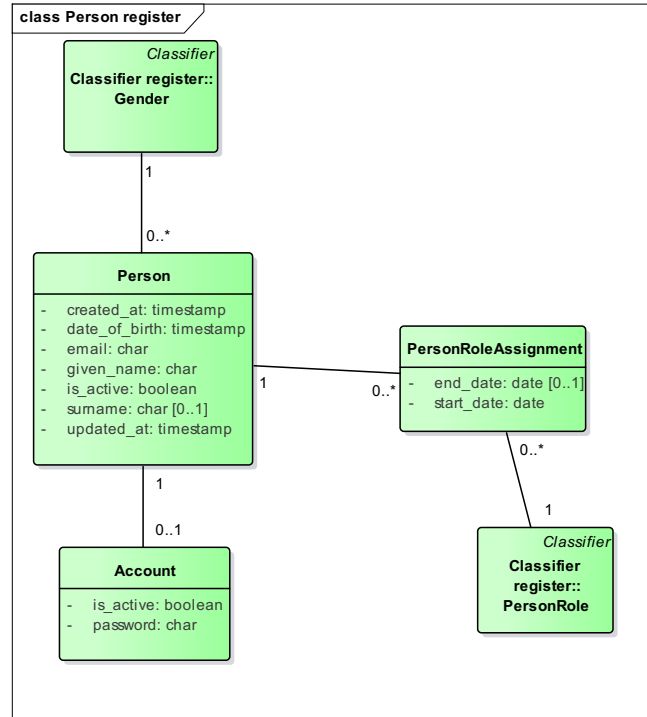


Diagram: Classifier register

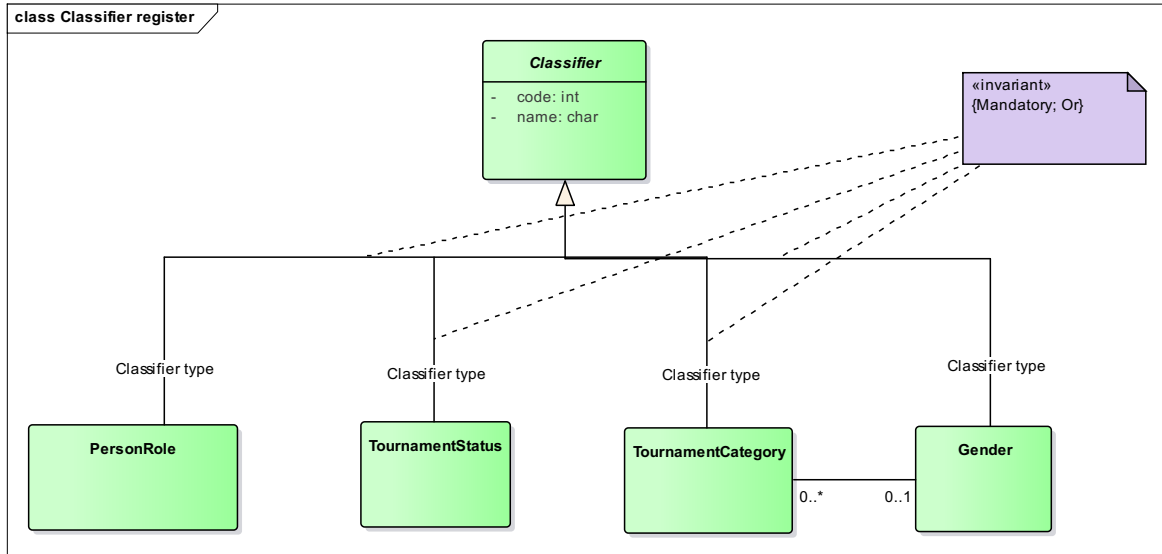


Diagram: Players register

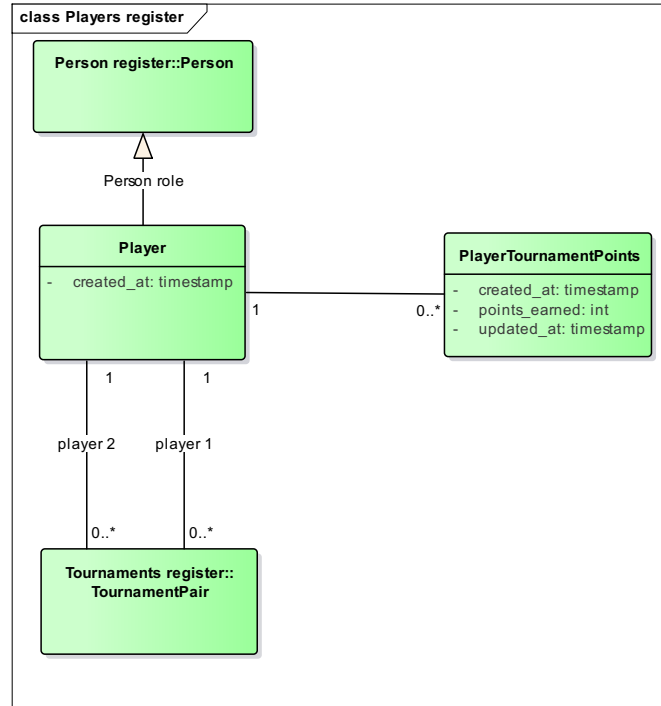


Diagram: Tournaments register

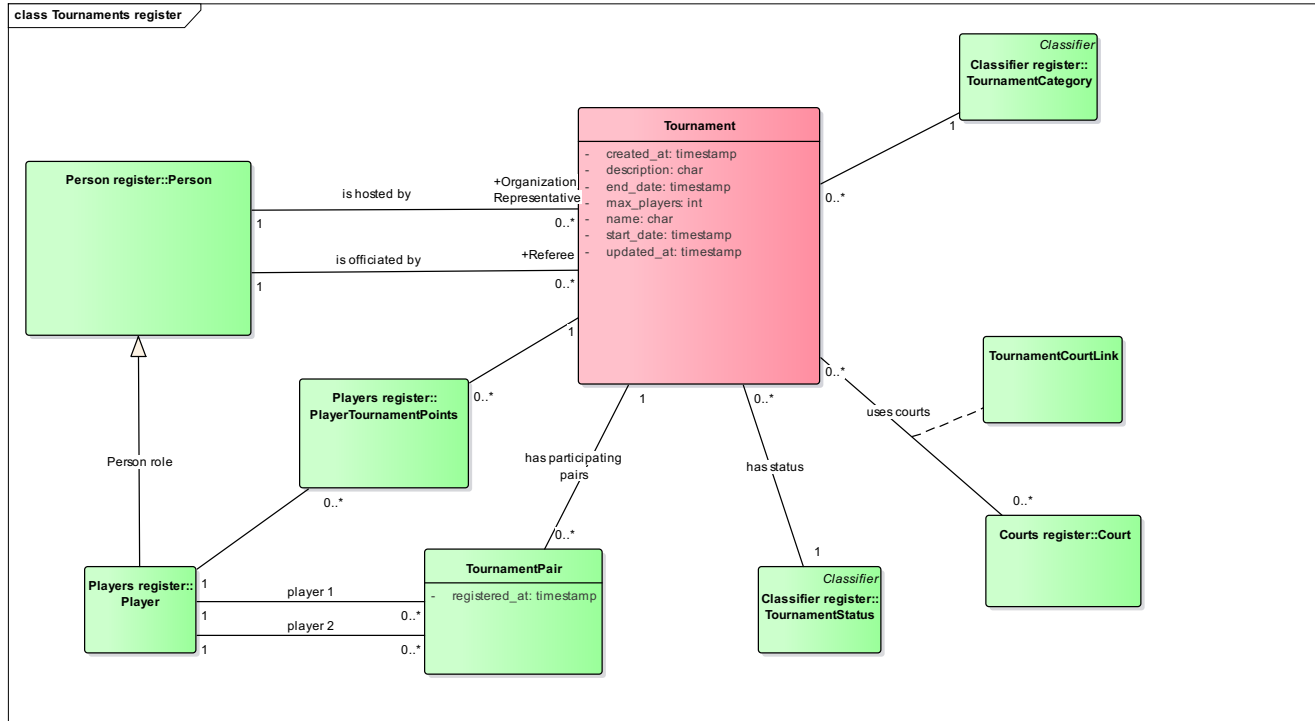


Diagram: Tournament state diagram

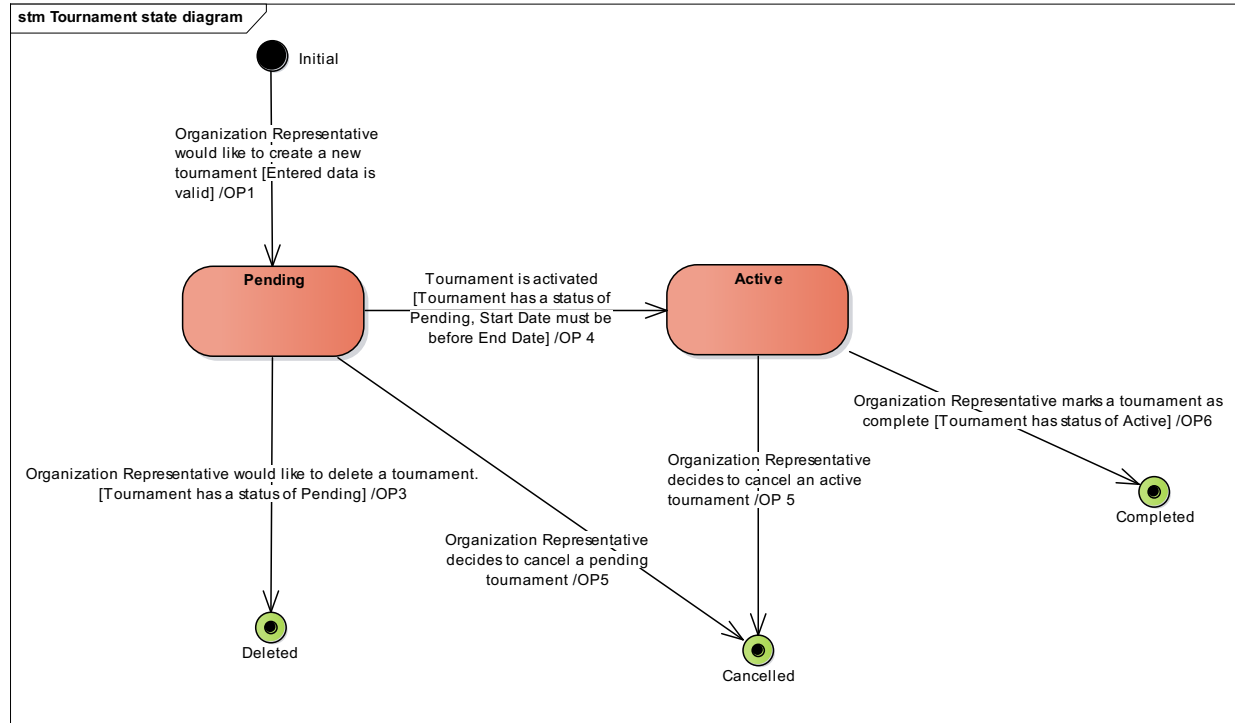
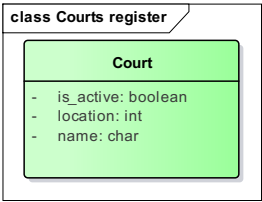


Diagram: Courts register



class Tournaments register (transformed)

```

classDiagram
    class Person {
        <<register>>
        +PK_person
    }
    class tournament {
        <<register>>
        +PK_tournament_id
        +name
        +description
        +start_date
        +end_date
        +max_players
        +FK_tournament_status
        +FK_tournament_category
        +FK_tournament_court_link
        +FK_tournament_pair
    }
    class tournament_court_link {
        <<register>>
        +FK_tournament_id
        +FK_court_id
        +FK_tournament_court_link_tournament
    }
    class tournament_pair {
        <<register>>
        +PK_tournament_pair_id
        +FK_tournament_id
        +FK_tournament_pair_player
    }
    class Courts {
        <<register>>
        +PK_court_id
    }
    class Players {
        <<register>>
        +PK_player_id
    }
    class Player_points {
        <<register>>
        +FK_player_id
        +FK_tournament_id
    }

    Person "1" -- "0..*" tournament : +FK_tournament_person
    tournament "1" -- "0..*" tournament_court_link : +FK_tournament_court_link_tournament
    tournament "1" -- "0..*" tournament_pair : +FK_tournament_pair_tournament
    tournament "1" -- "0..*" Courts : +FK_tournament_court_id
    tournament "1" -- "0..*" Players : +FK_tournament_player_id
    tournament "1" -- "0..*" Player_points : +FK_tournament_points_tournament
    tournament_court_link "1" -- "0..*" Courts : +FK_court_id
    tournament_pair "1" -- "0..*" Players : +FK_tournament_pair_player
    Player_points "1" -- "0..*" Players : +FK_player_id
    
```

The diagram illustrates the structure of the Tournaments register, which includes several tables and their relationships:

- Person register: person** (PK: person)
- tournament** (PK: tournament_id)
 - Columns: name, description, start_date, end_date, max_players, FK_tournament_status, FK_tournament_category, FK_tournament_court_link, FK_tournament_pair.
 - Indexes: IXFK_tournament_person, IXFK_tournament_person_02, IXFK_tournament_tournament_category, IXFK_tournament_tournament_status.
 - Constraints: PK_tournament, unique (us_tournament_name_start).
- tournament_court_link** (FK: tournament_id, FK: court_id, FK: tournament_court_link_tournament)
- tournament_pair** (PK: tournament_pair_id, FK: tournament_id, FK: tournament_pair_player)
- Courts register: court** (PK: court_id)
- Players register: player** (PK: player_id)
- Players register: player_tournament_points** (FK: player_id, FK: tournament_id)

Relationships are defined by foreign keys (FK) and primary keys (PK) with cardinalities (1, 0..*, 1).

Diagram: Players register (transformed)

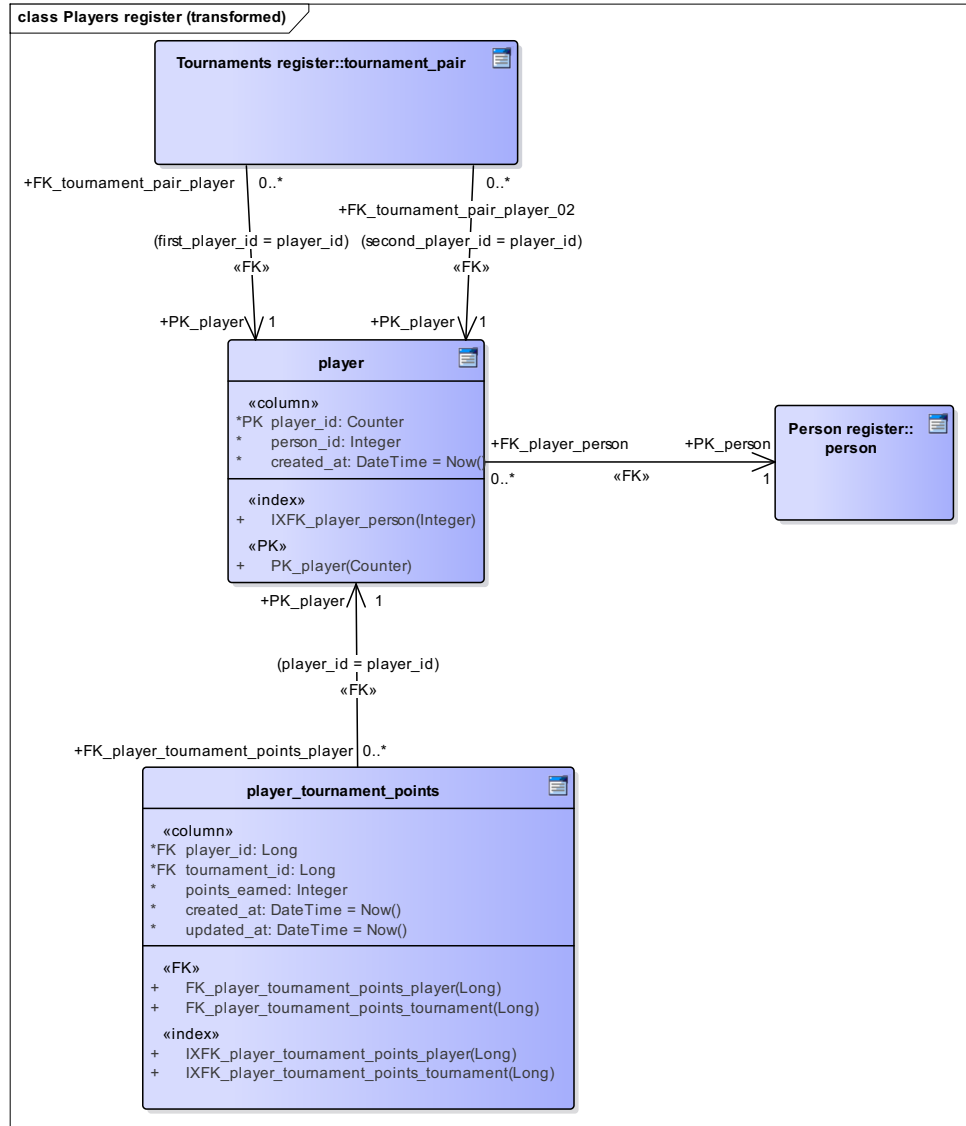


Diagram: Person register (transformed)

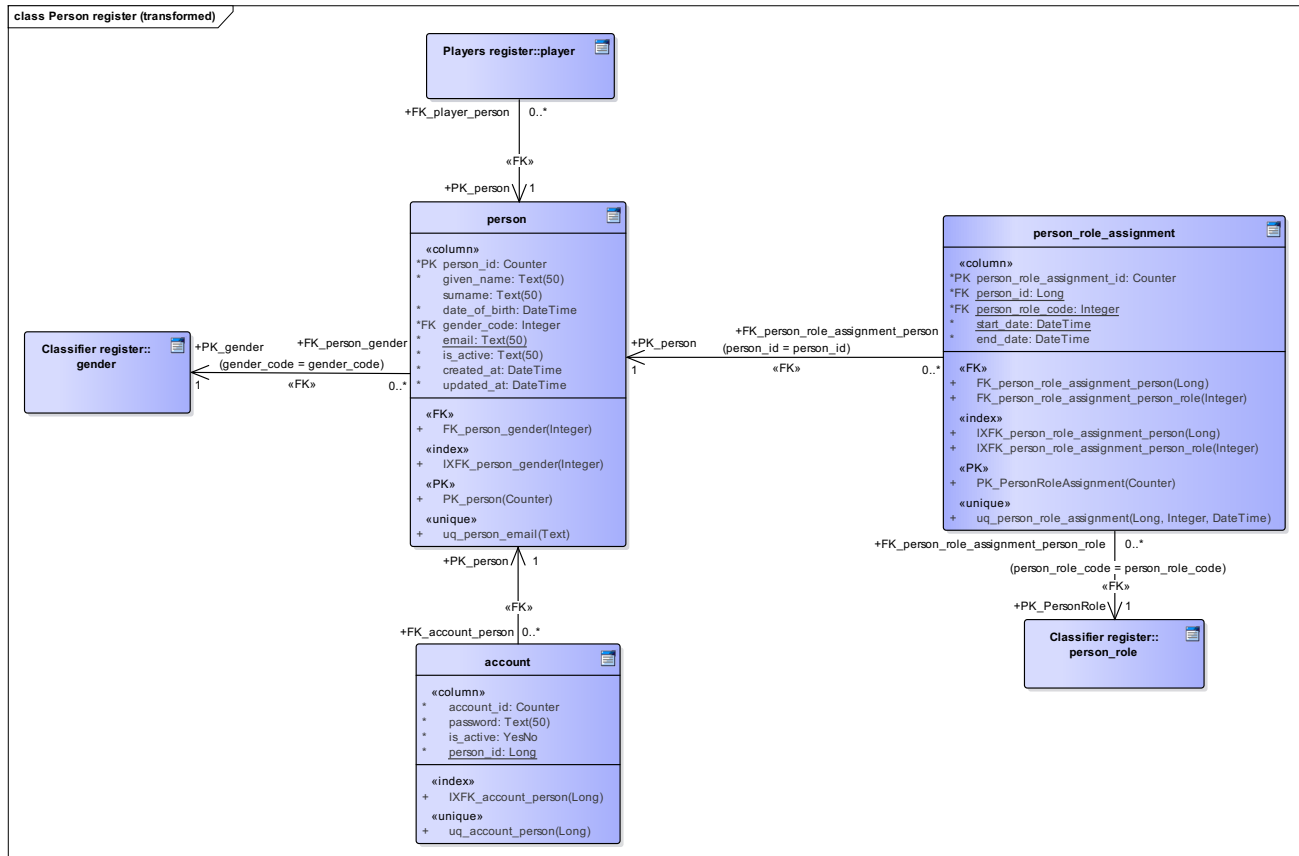


Diagram: Courts register (transformed)

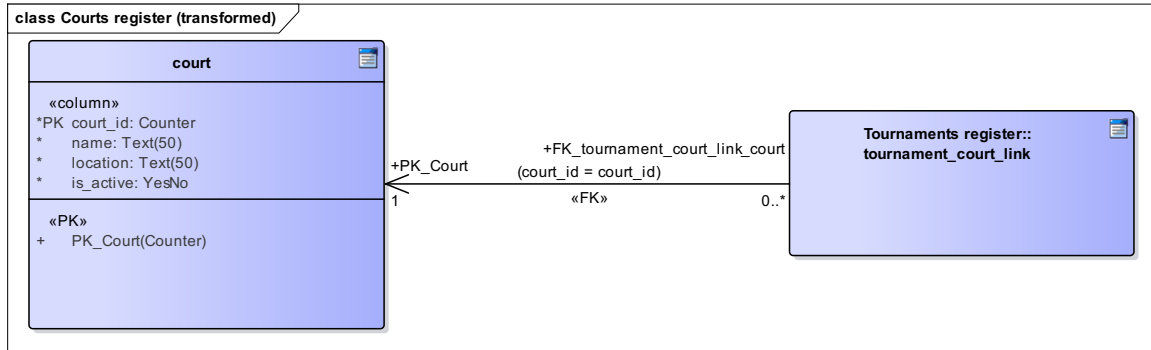


Diagram: Classifier register (transformed)

