



# CSCI 5448 - Team 37 - Rec Center Mgmt System



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# Project Description

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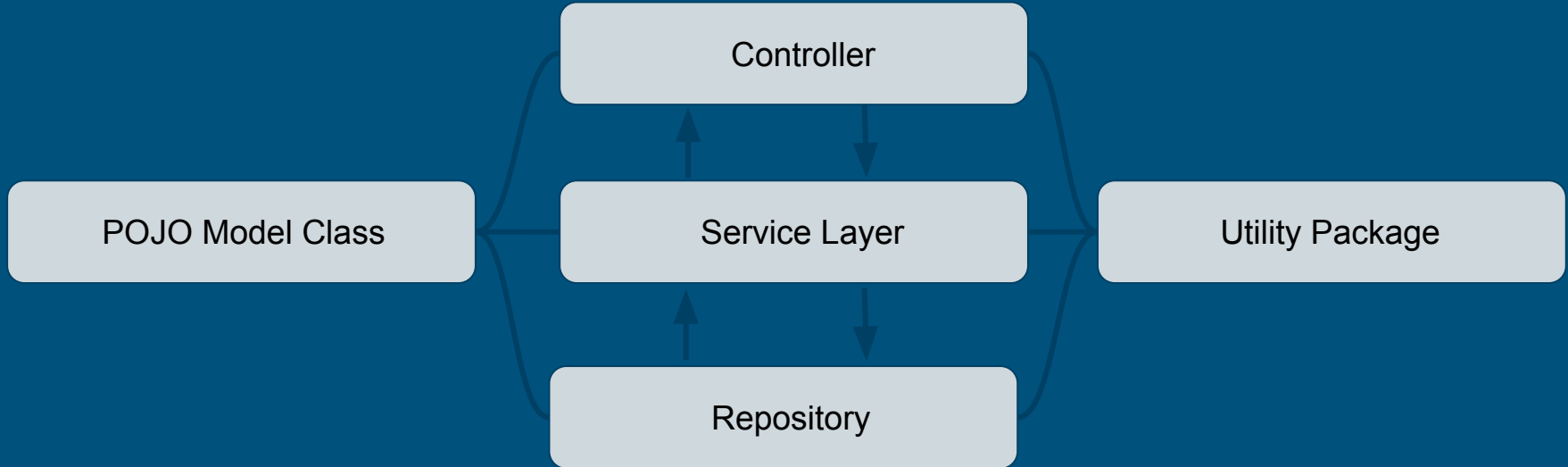
A system to provide access to students and customers to avail fitness services and amenities from a well-equipped Sports Studio.

## Features :

- Enables users to request an appointment with a trainer.
- Provides interfaces for reserving courts and gym equipments.
- Platform offers facilities for users to register for events like competition, hikes and workshops.

# Module Structure

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# Development Tools

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## SpringBoot Application - Annotation Based Configuration

```
@Service
public class EventService {

    @Autowired
    EventDaoImpl eventDaoImpl;

    private ArrayList<Event> eventList;
```

```
@Repository
public class EventDaoImpl implements IEventDao {

    private PreparedStatement preparedStatement = null;
    private ResultSet resultSet = null;
    private List<Event> eventList;
    private ArrayList<Integer> userList;
```

# RESTful API - Using HTTP Message Converters

```
//Function to create and add new event
@RequestMapping(path="/add_event",method = RequestMethod.POST,headers="Content-Type=application/json")
@ResponseStatus(HttpStatus.CREATED)
public ApiResponse addNewEvent(@RequestBody Event event) throws ParseException {
    return eventService.addEvent(event);
}
```

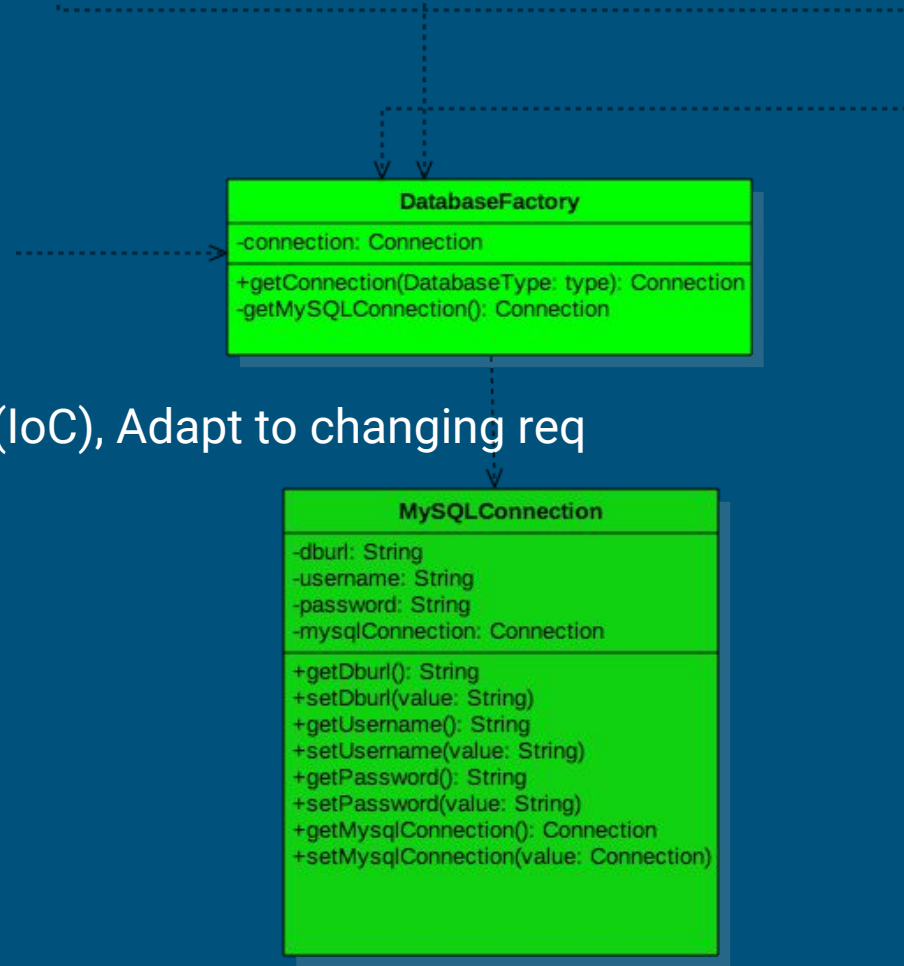
## MySQL Relational Database

```
mysql-sql> select * from eventregistration;
```

regID	eventID	userID	eventType
cf3057a2-8745-4ada-ae53-31e56eb287c7	35	101	Trip

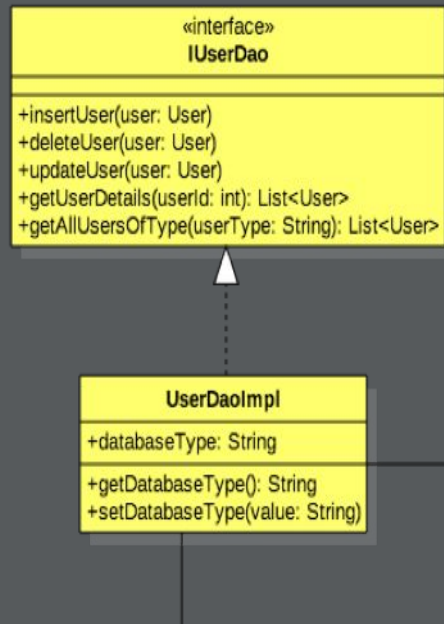
# Factory Design Pattern

- Creational
- Benefits : SOLID , Inversion of Control (IoC), Adapt to changing req
- Database connectivity
  - DatabaseFactory -> getConnection()



# Data Access Object Design Pattern

- Used to separate low level data accessing operations from high level business services.
- Object <-> Table
- InterfaceDao ← ConcreteDao
- UserDaoImpl -> DatabaseFactory->getConnection(type)





# Demo