# Facility Management System Design

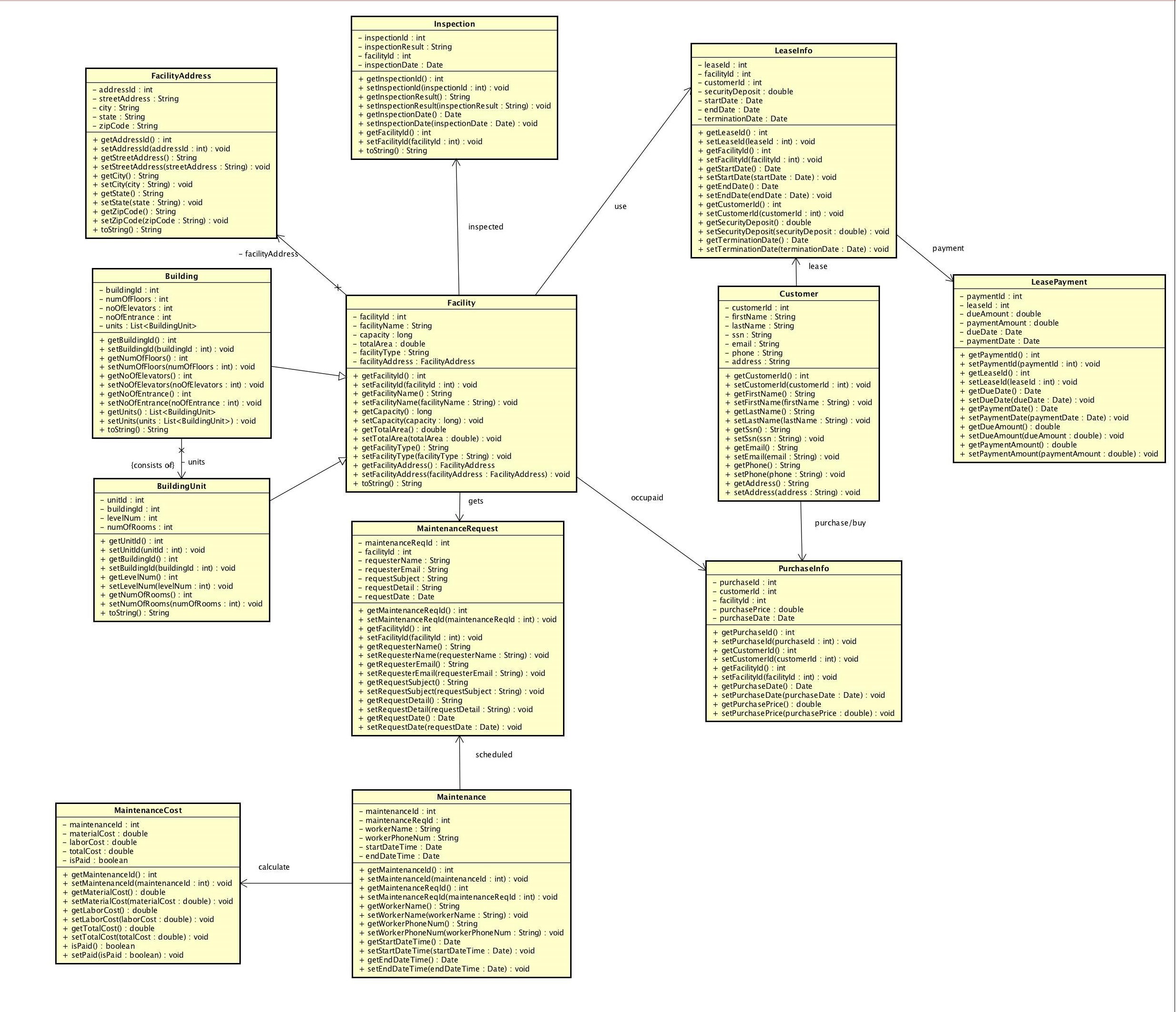
**Project 1**

**CS 373/473: Objects, Frameworks, and Patterns (Advanced Object Oriented Programming)**

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# UML Diagram



# Database Model

|  |  |  |  |
| --- | --- | --- | --- |
| building |  |  |  |
| building\_id |  |  |  |
| facility\_id |  |  |  |
| num\_of\_elevators |  |  |  |
| num\_of\_floors |  |  |  |
| num\_of\_entrance |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| building\_unit |  |  |  |
| unit\_id |  |  |  |
| facility\_id |  |  |  |
| level\_num |  |  |  |
| num\_of\_rooms |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| customer |  |  |  |
| customer\_id |  |  |  |
| first\_name |  |  |  |
| last\_name |  |  |  |
| SSN |  |  |  |
| email |  |  |  |
| phone |  |  |  |
| address |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| facility\_address |  |  |  |
| facility\_address\_id |  |  |  |
| street\_address |  |  |  |
| city |  |  |  |
| state |  |  |  |
| zip |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| maintenance |  |  |  |
| maintenance \_id |  |  |  |
| main\_req\_id |  |  |  |
| worker\_name |  |  |  |
| worker\_phone |  |  |  |
| start\_date |  |  |  |
| end\_date |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| facility |  |  |  |
| facility\_id |  |  |  |
| facility\_name |  |  |  |
| capacity |  |  |  |
| total\_area |  |  |  |
| facility\_type |  |  |  |
| facility\_address\_id |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| inspection |  |  |  |
| inspection \_id |  |  |  |
| inspection \_date |  |  |  |
| inspection\_result |  |  |  |
| facility\_id |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| maintenance\_cost |  |  |  |
| maintenance \_id |  |  |  |
| material\_cost |  |  |  |
| labour\_cost |  |  |  |
| total\_cost |  |  |  |
| is\_paid |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| maintenance\_request |  |  |  |
| main\_req\_id |  |  |  |
| facility\_id |  |  |  |
| request\_date |  |  |  |
| name\_of\_requester |  |  |  |
| detail |  |  |  |
| email |  |  |  |
| subject |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| purchase\_info |  |  |  |
| purchase \_id |  |  |  |
| customer\_id |  |  |  |
| facility\_id |  |  |  |
| purchase\_date |  |  |  |
| purchase\_price |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| lease\_info |  |  |  |
| lease \_id |  |  |  |
| facility\_id |  |  |  |
| start\_date |  |  |  |
| end\_date |  |  |  |
| customer\_id |  |  |  |
| security\_deposite |  |  |  |
| termination\_date |  |  |  |
| status |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| lease\_payment |  |  |  |
| payment \_id |  |  |  |
| lease \_id |  |  |  |
| amount\_due |  |  |  |
| payment\_date |  |  |  |
| amount\_paid |  |  |  |
| due\_date |  |  |  |

**GitHub Repository:**

<https://github.com/snowreen/facility-management>

**Database:**

MySQL

**How to Run the Project**

Database DDL statements are available inside database.txt (attached with email and also available in Github [https://github.com/snowreen/facility-management](https://github.com/snowreen/facility-management%20)) . You can run it from command line using following command (change path to this file path, mysql server needs to be started before that):

mysql < {path}/database.txt

Please change mysql database username and password according to yours in DBHelper.java class (line 33).

**For Testing,**

FacilityClient.java has the main method to test this application.

We have created all the domain models, interfaces and implementation classes of those interfaces. Also created DAO classes to fetch/insert/update from database. We are still trying to deploy MySQL database to Heroku but not succeed yet. Everything runs fine in our local.