Lab Assignment 7
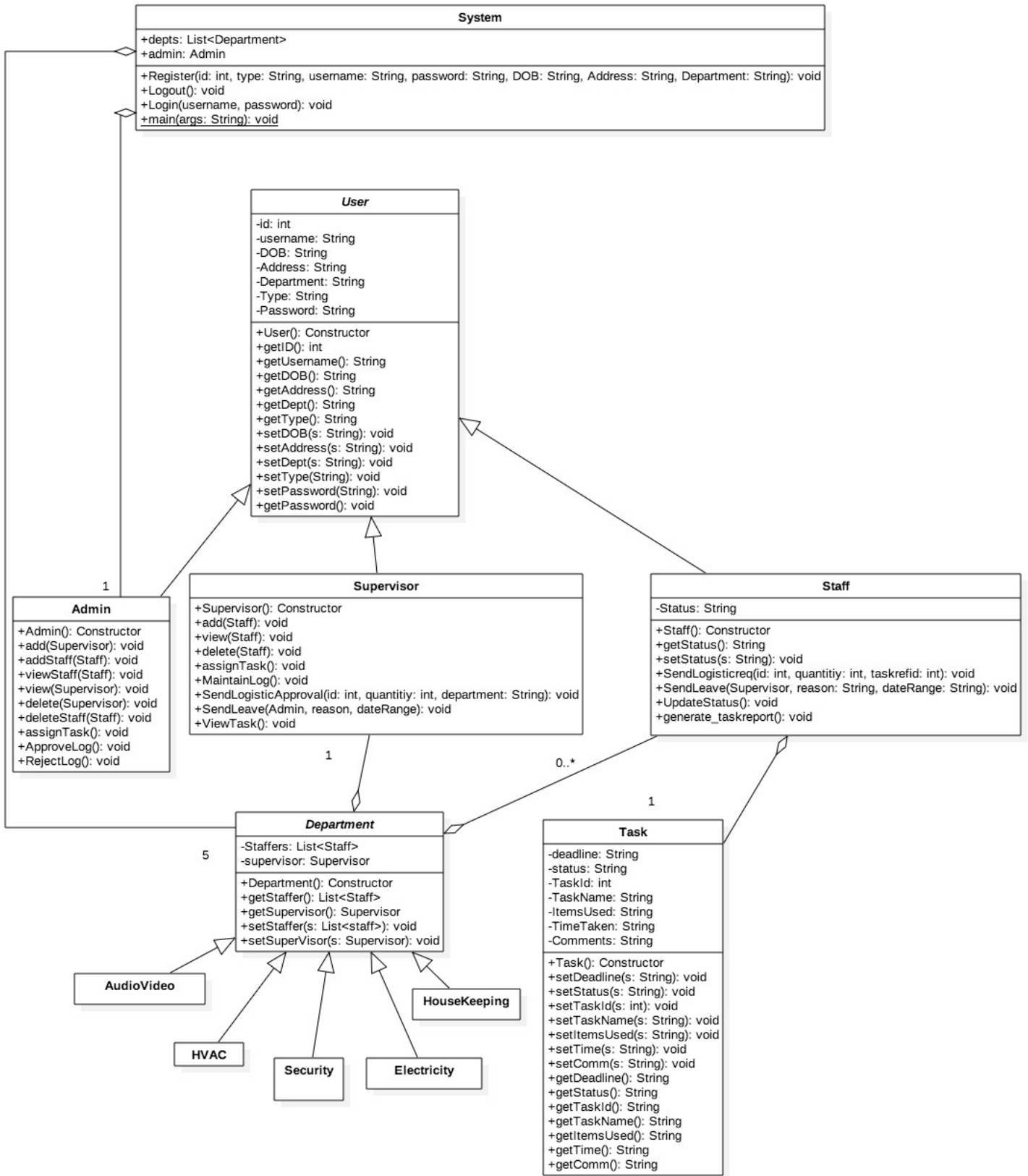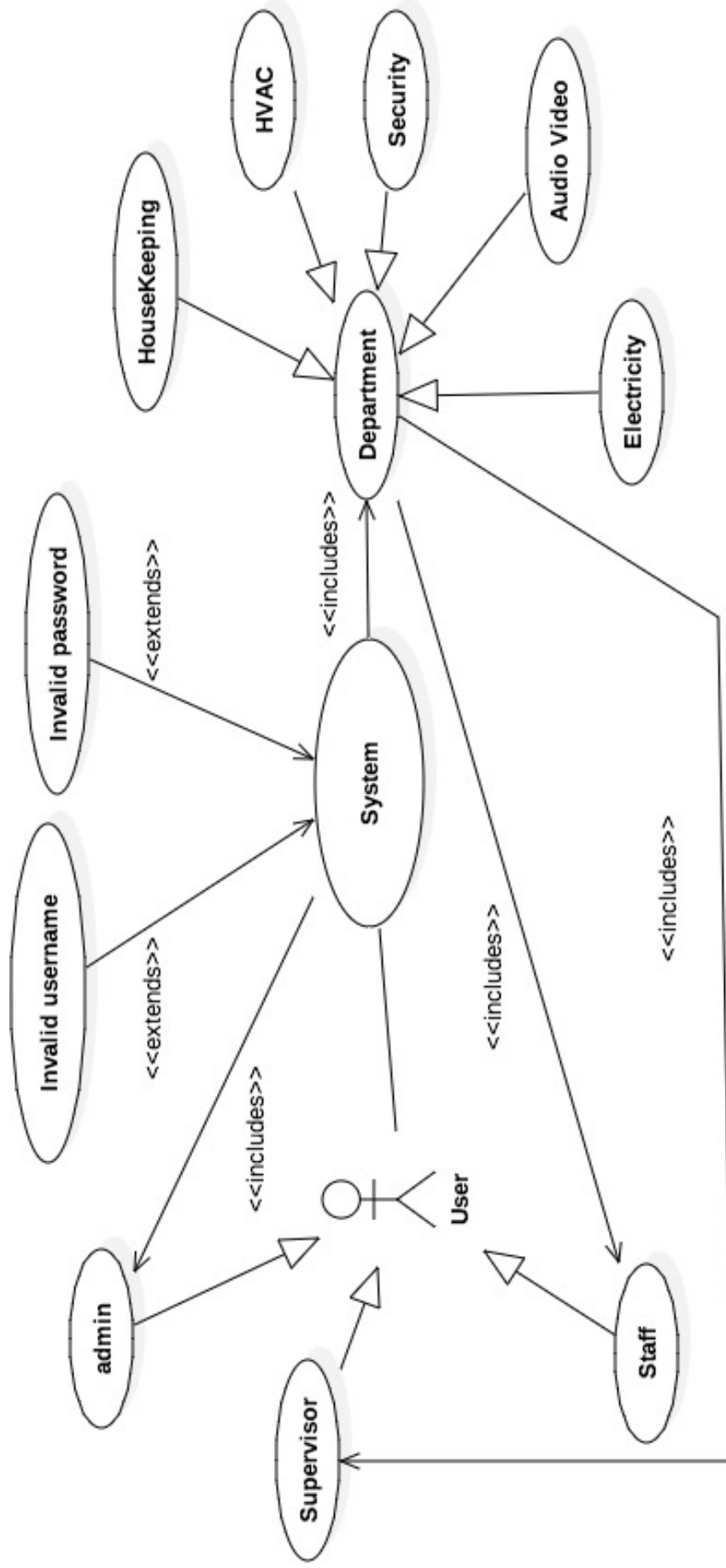
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Class Diagram

System

Attributes:
+depts: List<Department>
+admin: Admin

Methods:
+Register(id: int, type: String, username: String, password: String, DOB: String, Address: String, Department: String): void
+Logout(): void
+Login(username, password): void
+main(args: String): void

User

Attributes:
-id: int
-username: String
-DOB: String
-Address: String
-Department: String
-Type: String
-Password: String

Methods:
+User(): Constructor
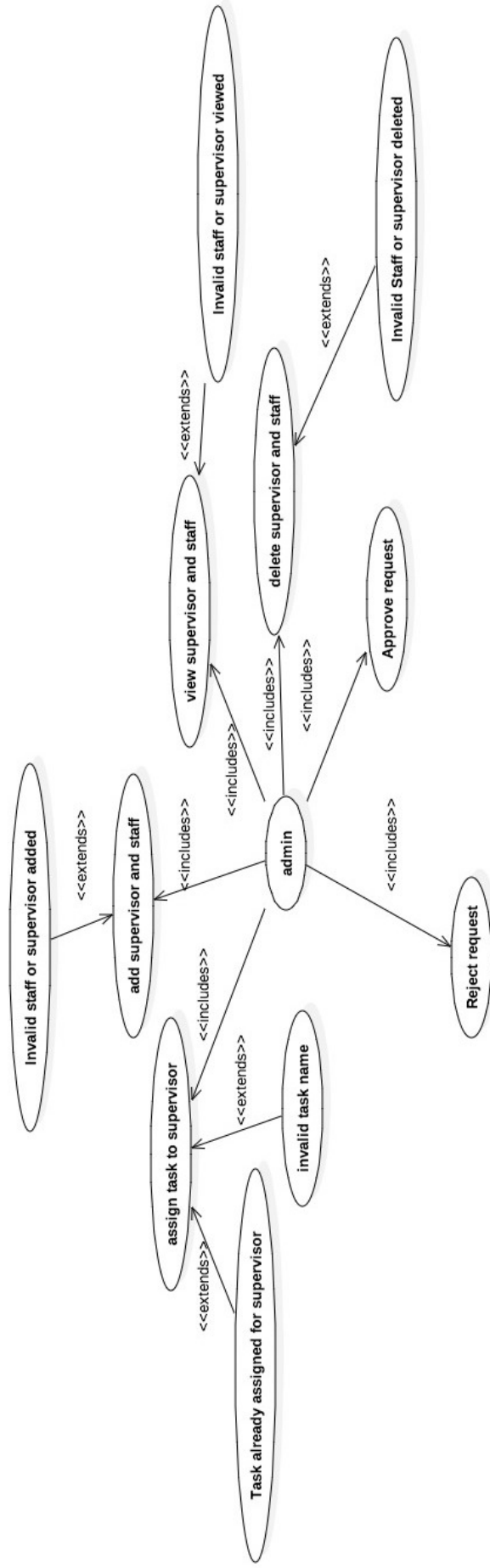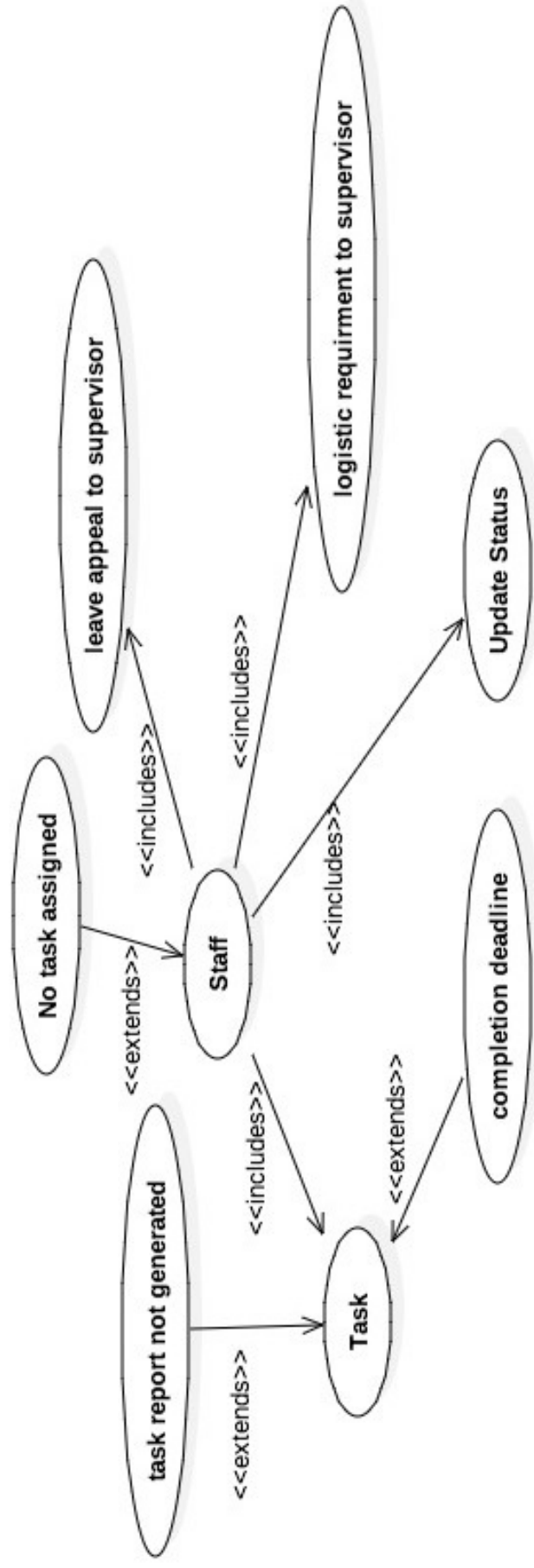+getID(): int
+getUsername(): String
+getDOB(): String
+getAddress(): String
+getDept(): String
+getType(): String
+setDOB(s: String): void
+setAddress(s: String): void
+setDept(s: String): void
+setType(String): void
+setPassword(String): void
+getPassword(): void

Admin

Methods:
+Admin(): Constructor
+add(Supervisor): void
+addStaff(Staff): void
+viewStaff(Staff): void
+view(Supervisor): void
+delete(Supervisor): void
+deleteStaff(Staff): void
+assignTask(): void
+ApproveLog(): void
+RejectLog(): void

Supervisor

Methods:
+Supervisor(): Constructor
+add(Staff): void
+view(Staff): void
+delete(Staff): void
+assignTask(): void
+MaintainLog(): void
+SendLogisticApproval(id: int, quantitiy: int, department: String): void
+SendLeave(Admin, reason, dateRange): void
+ViewTask(): void

Staff

Attributes:
-Status: String

Methods:
+Staff(): Constructor
+getStatus(): String
+setStatus(s: String): void
+SendLogisticreq(id: int, quantitiy: int, taskrefid: int): void
+SendLeave(Supervisor, reason: String, dateRange: String): void
+UpdateStatus(): void
+generate_taskreport(): void

Department

Attributes:
-Staffers: List<Staff>
-supervisor: Supervisor

Methods:
+Department(): Constructor
+getStaffer(): List<Staff>
+getSupervisor(): Supervisor
+setStaffer(s: List<staff>): void
+setSuperVisor(s: Supervisor): void

Task

Attributes:
-deadline: String
-status: String
-TaskId: int
-TaskName: String
-ItemsUsed: String
-TimeTaken: String
-Comments: String

Methods:
+Task(): Constructor
+setDeadline(s: String): void
+setStatus(s: String): void
+setTaskId(s: int): void
+setTaskName(s: String): void
+setItemsUsed(s: String): void
+setTime(s: String): void
+setComm(s: String): void
+getDeadline(): String
+getStatus(): String
+getTaskId(): String
+getTaskName(): String
+getItemsUsed(): String
+getTime(): String
+getComm(): String

AudioVideo

HVAC

Security

Electricity

HouseKeeping

Relationship multiplicities: 1, 1, 5, 0..*, 1

Use-case Diagrams

Invalid staff or supervisor viewed

Invalid Staff or supervisor deleted

<<extends>>

delete supervisor and staff

<<extends>>

view supervisor and staff

<<includes>>

Approve request

<<includes>>

admin

Invalid staff or supervisor added

<<extends>>

add supervisor and staff

<<includes>>

<<includes>>

Reject request

<<includes>>

assign task to supervisor

<<includes>>

invalid task name

<<extends>>

Task already assigned for supervisor

<<extends>>

Variables and method description

1.System Class

Variables:
- public depts- List of Departments
- public admin of type Admin

Methods:
- void Register(int id, String username ,String type ,String password ,String DOB ,String address ,String Department) – Registers the supervisor, staff, admin and assign them the following parameters.
- void Login(String username ,String password)-Logins admin, supervisor, staff with following username and password.
- void Logout()-Logout admin, supervisor, staff.
- void main(String args[])

2.User Class(Abstract)

Variables:
- private id of type int
- private username of type String
- private password of type String
- private DOB of type String
- private Address of type String
- private Type of type String
- private Department of type String

Methods:
- getter/Setter for private attribute
  - int getID()
  - String getUsername()
  - String getDOB()
  - String getAddress()
  - String getDept()

- o String getType()
- o String getPassword()
- o void setDOB(String s)
- o void setAddress(String s)
- o void setDept(String s)
- o void setType (String s)
- o void setPassword(String s)

3.Admin Class

Methods:
- void add(Supervisor s)-add Supervisor s
- void addStaff(Staff s)-add Staff s
- void view(Supervisor s)-view Supervisor s
- void viewStaff(Staff s)-view Staff s
- void delete(Supervisor s)-delete Supervisor s
- void deleteStaff
- (Staff s)-delete Staff s
- void assignTask()-assign Task to supervisor
- void ApproveLog()-approve logistic by supervisor
- void RejectLog()-reject logistic by supervisor

4.Supervisor Class

Methods:
- void add(Staff s)-add Staff s
- void view(Staff s)-view Staff s
- void delete(Staff s)-delete Staff s
- void assignTask()-assign task to staff
- void MaintainLog()-maintain logistic of their respective department.
- void SendLogisticApproval(int id,int quantitity,String Department)-send logistic approval to GM
- void SendLeave(Admin s,String[] reason,String dateRange)-Send leave to GM
- void viewTask()

5.Staff Class

Variables:
- private status of type String

Methods:
- getter/Setter
  - String getStatus()
  - void setStatus(String s)
- void SendLogisticreq (int id, int quantity, int taskrefid)-send logistic requirement to Supervisor
- void SendLeave(Supervisor s,String[] reason,String daterange)- send leave to department Supervisor
- void UpdateStatus():Update task to ongoing or complete.
- void generate_taskreport(): generate task report and saved in pdf or text format.

6.Department Class(Abstract)

variables:
- private Staffers of type List<Staff>
- private supervisor of type Supervisor

Methods:
- getter/setters
  - Supervisor getSupervisor()
  - List<Staff> getStaffers()
  - void setStaffers(List<Staff> s)
  - void setSuperVisor(Supervisor s)

7.Task Class

variables:
- private deadline of type String
- private Status of type String
- private TaskName of type String

- private TaskId of type int
- private ItemsUsed of type String
- private TimeTaken of type String
- private Comments of type String

Methods:
- getter/setters
  - void setDeadline(String s)
  - void setStatus(String s)
  - void setTaskId(int s)
  - void setTaskName(String s)
  - void setDeadline(String s)
  - void setItemsused(String s)
  - void setTime(String s)
  - void setComm(String s)
  - String getDeadline()
  - String getStatus()
  - int getTaskId()
  - String geTaskName()
  - String getItemsUsed()
  - String getTime()
  - String getComm()