Petroleum Company System Project

Description:Aim: To increase the efficiency of operation in the company

This system will be used for time scheduling and task distribution and operation management.

This system will not be fully involved in the production process.

List of team members:

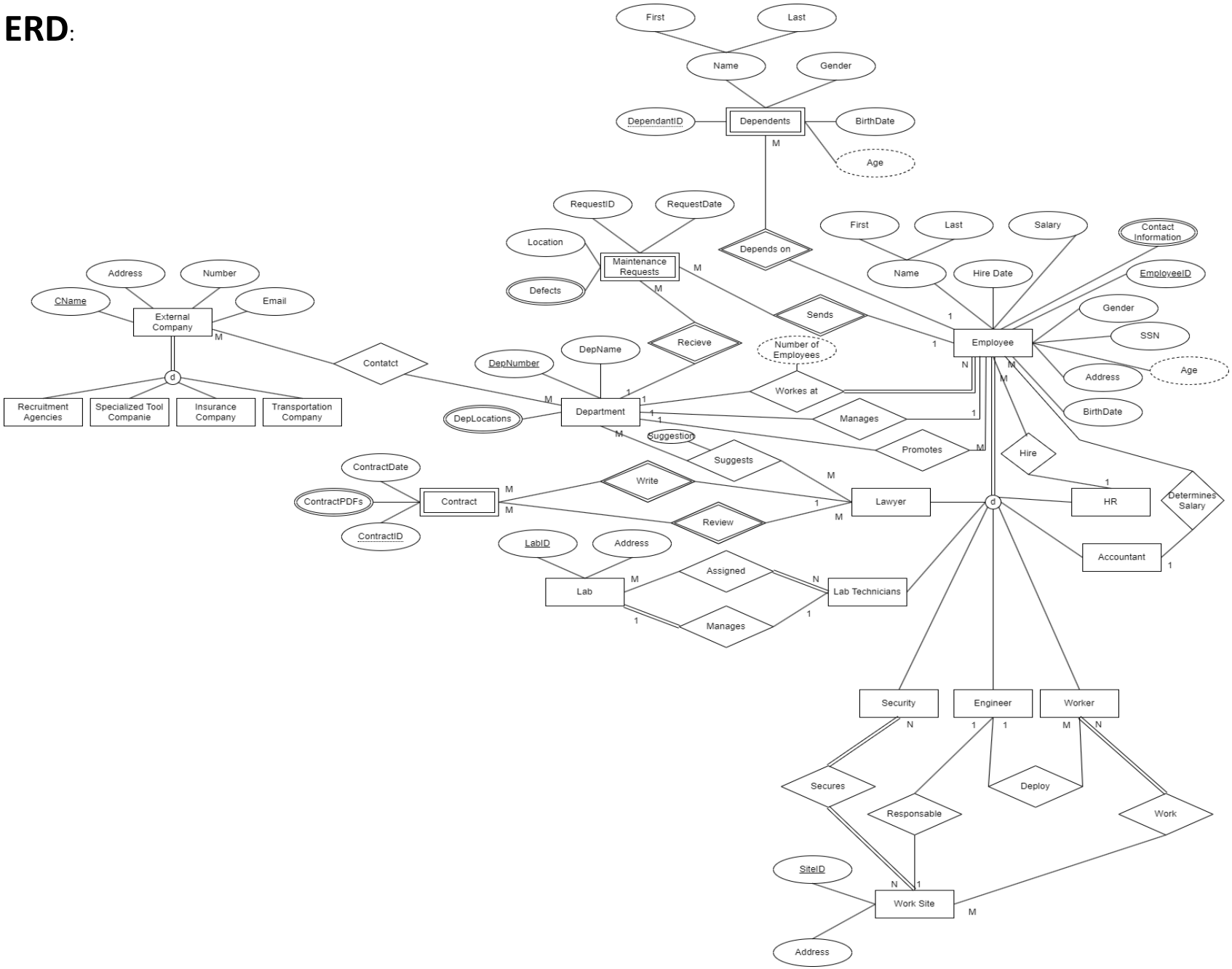
Project Manager:

Ali Ehab Ali Hassan	**21100800**

Team Members:

Mohamed Ashraf Rabie Mohamed	**21100854**
Ramez Mohamed Fathi Ahmed	**21100793**
Youssef Khaled Abdelsalam Mohamed	**21100865**
Mohamed Ashraf Mahmoud Mohamed	**21100873**

ERD:



First
Last
Name
Gender
DependantID
Dependents
BirthDate
Age
M
RequestID
RequestDate
Location
Maintenance Requests
Defects
Depends on
First
Last
Salary
Contact Information
Name
Hire Date
EmployeeID
Gender
SSN
Age
Address
BirthDate
Employee
Address
Number
CName
Email
External Company
Contatct
Recruitment Agencies
Specialized Tool Companie
Insurance Company
Transportation Company
DepNumber
DepName
Recieve
Sends
Number of Employees
Workes at
Manages
Promotes
Department
DepLocations
Suggestion
Suggests
Hire
ContractDate
ContractPDFs
Contract
ContractID
Write
Review
Lawyer
HR
Determines Salary
Accountant
LabID
Address
Lab
Assigned
Manages
Lab Technicians
Security
Engineer
Worker
Secures
Responsable
Deploy
Work
SiteID
Work Site
Address

Relational Schema:

Employee Salary (Employee ID, Accountant ID, Salary)

Hired Employee (Employee ID, Employer ID, Hire Date)

Employee Position (Employee ID, Department Number, Position)

Employee (Employee ID, FirstName, LastName, Salary, Gender, SSN, Address, Birthdate)

Contact Information (Employee ID, Contact information)

Dependent (Dependent ID, Employee ID, Birthdate, Gender, FirstName, LastName)

HR (Employee ID)

Accountant (Employee ID)

Worker (Employee ID, Engineer ID)

Worker Working in Work Site (Worker ID, Site ID)

Engineer (Employee ID)

Security (Employee ID)

Security Securing Worksite (Security ID, Site ID)

Worksite (Site ID, Address, Responsible Engineer ID)

Lab Technicians (Employee ID)

Lab Technicians Assigned Lab (Lab Technician ID, Lab ID)

Lab (Lab ID, Address, Lab Manager)

Lawyer (Employee ID)

Lawyer Suggestion (Lawyer ID, Department ID, Suggestion)

Contract Review (Lawyer ID, Contract ID)

Contract (Contract ID, Lawyer ID, Contract Date)

Contract PDF (Contract ID, Contract PDF)

Department (Department Number, Department Name, Manager)

Department Location (Department Number, Location)

Employee Request (Employee ID, Request ID, Location, Request Date)

Maintenance Request (Request ID, Employee ID, Department ID)

Defects in Maintenance Request (Request ID, Defect)

Department Contacting External Company (Company Name, Department Number)

External Company (Company Name, Address, Number, Email)

Recruitment agency (Company Name)

Specialized Tool Company (Company Name)

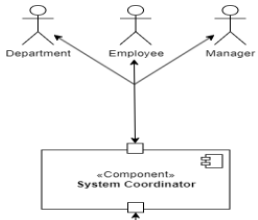
Insurance company (Company Name)

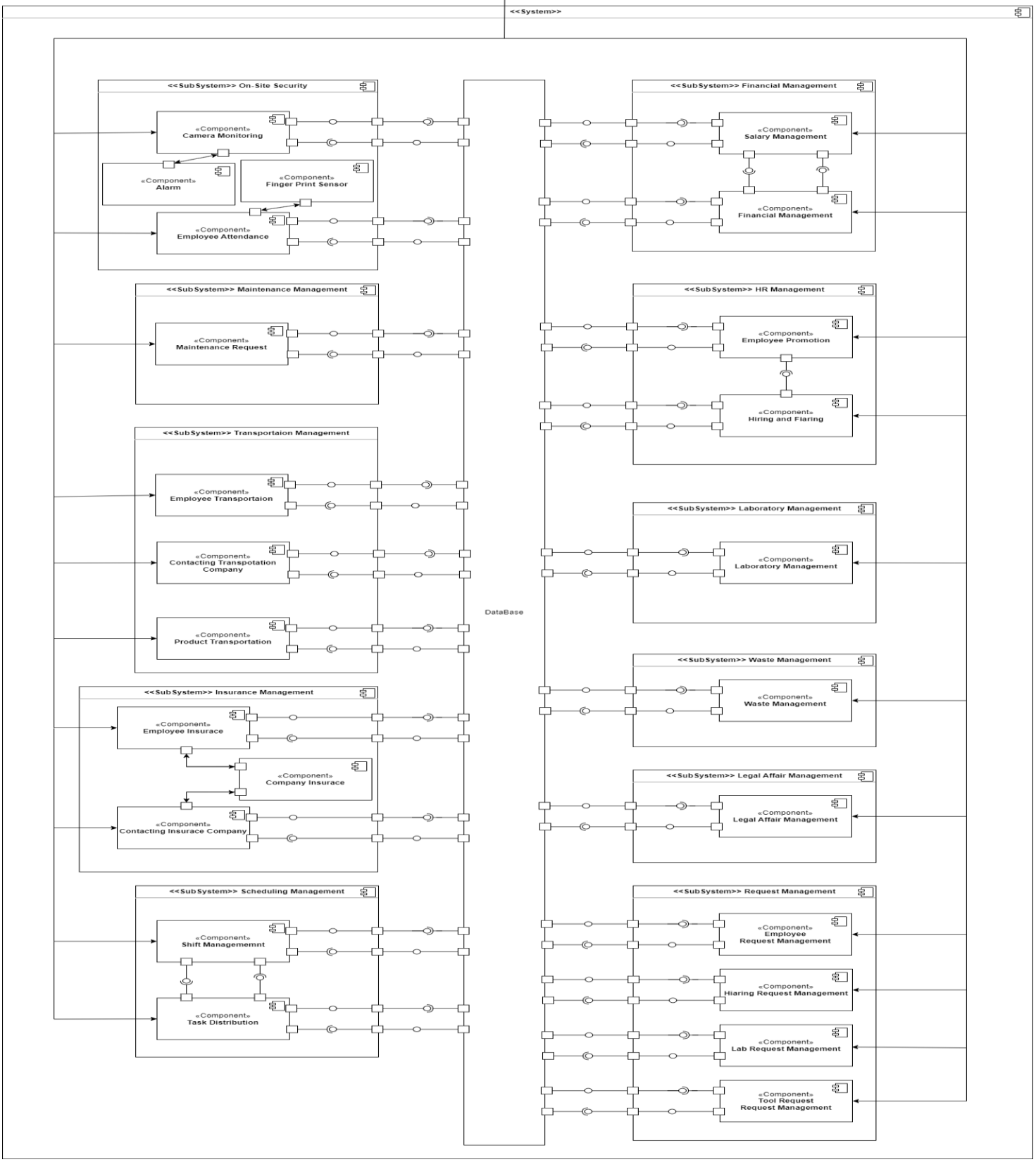
Transportation Company (Company Name)

Component Diagram:

Reposatory Style

With orchistraded Controle





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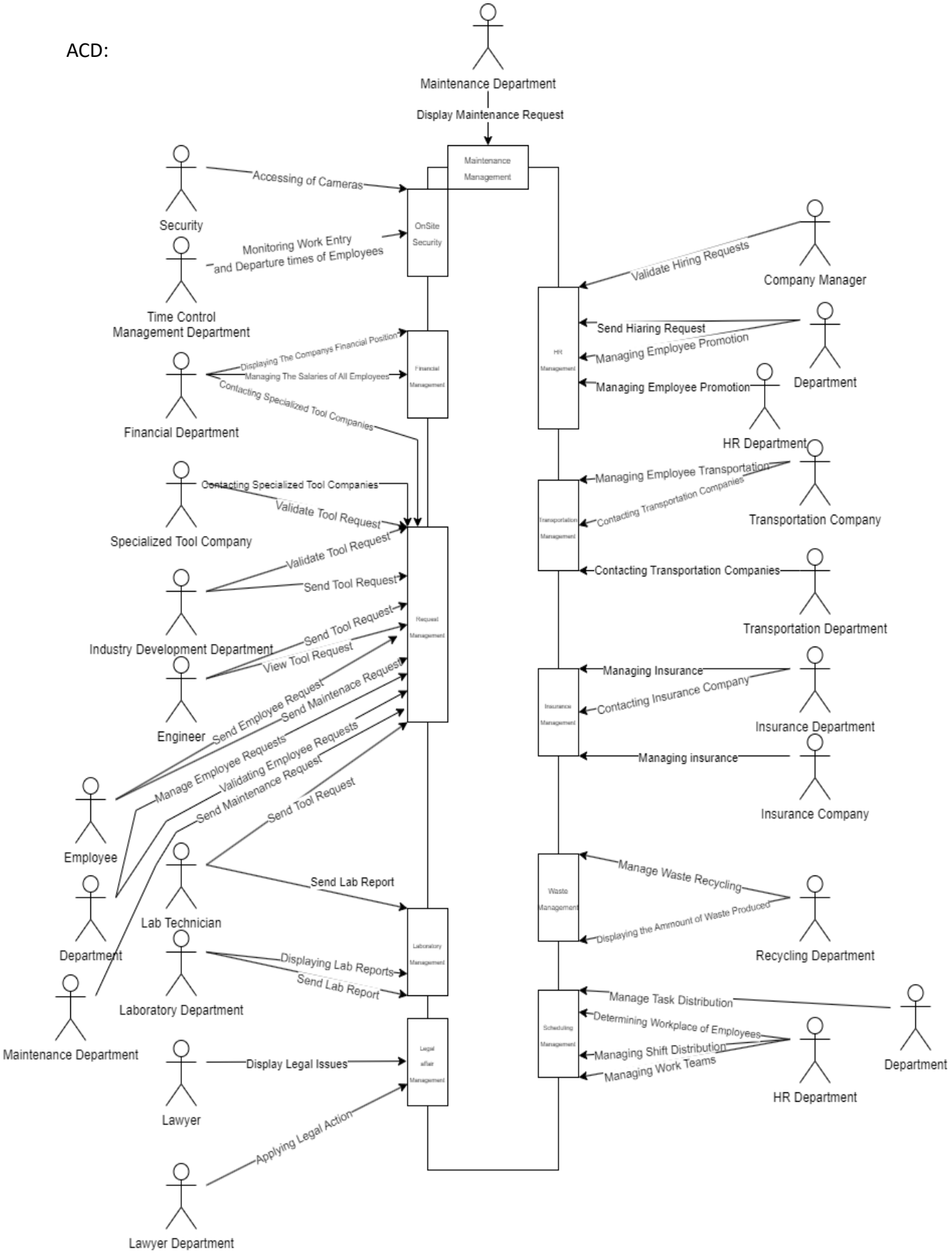

Maintenance Department
Display Maintenance Request
Maintenance Management
Accessing of Cameras
Security
OnSite Security
Monitoring Work Entry and Departure times of Employees
Time Control Management Department
Validate Hiring Requests
Company Manager
HR Management
Send Hiaring Request
Managing Employee Promotion
Managing Employee Promotion
Department
HR Department
Displaying The Companys Financial Position
Managing The Salaries of All Employees
Contacting Specialized Tool Companies
Financial Management
Financial Department
Managing Employee Transportation
Contacting Transportation Companies
Transportation Management
Transportation Company
Contacting Specialized Tool Companies
Validate Tool Request
Specialized Tool Company
Contacting Transportation Companies
Transportation Department
Validate Tool Request
Send Tool Request
Request Management
Industry Development Department
Send Tool Request
View Tool Request
Send Employee Request
Send Maintenace Request
Engineer
Managing Insurance
Contacting Insurance Company
Insurance Management
Insurance Department
Managing insurance
Insurance Company
Manage Employee Requests
Validating Employee Requests
Send Maintenance Request
Send Tool Request
Employee
Send Lab Report
Manage Waste Recycling
Displaying the Ammount of Waste Produced
Waste Management
Recycling Department
Lab Technician
Department
Laboratory Management
Displaying Lab Reports
Send Lab Report
Laboratory Department
Manage Task Distribution
Determining Workplace of Employees
Managing Shift Distribution
Managing Work Teams
Scheduling Management
Department
HR Department
Maintenance Department
Display Legal Issues
Legal affair Management
Lawyer
Applying Legal Action
Lawyer Department

Maintenance Management:

+ DisplayMaintenanceRequests() : void
+ ValidateMaintenanceRequest(int requestID) : void

Financial Management:

+ setEmployeeSalary(employeeID) : void
+ getEmployeeSalary(EmployeeID) : float
+ getCompanyFinancialReport() : void
+ UpdateCompanyFiancialReport(Report report) : void

Request Management:

+ DisplayToolRequestPurchase() : void
+ ValidateToolRequestPurchase(int requestID) : void

+ sendToolRequestPurchaseToCompanyManager(int requestID) : void
+ ValidateToolRequestPurchaseRequestFromCompanyManager(int requestID) : void

+ ContactSpecializedToolCompanyCompany(String companyName, Request request) : void
+ SendToolRequestPurchaseToFinancialDepartment(Request request) : void
+ DisplayFinancialDepartmentValidation(int requestID) : void
+ ValidtaeToolRequestFromExternalCompany(String companyName) : void

+ SendToolRequest(Report report) : void
+ DisplayToolRequestValidation() : void

+ displayDepartmentRequest() : void
+ validateDepartmentRequest(int departmentID, int requestID) : void

+ DisplayPurchaseRequest() : void
+ ValidatePurchaseRequest(int requestID) : void
+ DisplayToolPurchaseRequest() : void
+ ValidateToolPurchaseRequest(int requestID) : void

+ SendEmployeeRequest(Request request, department_ID) : int
+ SendMaintenanceRequest(Request request, department_ID) : int
+ displayEmployeeData() : void

Laboratory Management:

+ SendLabReport(Report report) : void
+ DisplayLabReport() : void
+ getLabReport(int reportID) : Report
+ getAllLabReports() : Report[]

Legal Affair Management:

+ fireEmployee(int EmployeeID)
+ getAllLegalDocuments() : Report[]
+ displayLegalDocument(int reportID) : void

Onsite Security:

+ AccessCamera() : void

+ EmployeeEntrance(int employeeID) : void
+ EmployeeExit(int employeeID) : void

Transportation Management:

+ displayDepartmentRequest() : void
+ validateDepartmentRequest(int departmentID, int requestID) : void

+ ContactTransportationCompany(String companyName, Request request) : void
+ AddTransportationTimeToEmployeeSchedual(int employeeID, String pickUpTime) : void
+ DisplayTransportationCompanyRequestValidation(String companyName,int requestID) : void

Insurance Management:

+ displayDepartmentRequest() : void
+ validateDepartmentRequest(int departmentID, int requestID) : void

+ setEmployeeInsurance(Report details, int employeeID) : void
+ AddDependantsToEmployeeInsurance(Dependants[], int employeeID) : void
+ getEmployeeInsurance(int employeeID) : void
+ setEmployeeDependants(int employeeID, Dependant[] dependants) : void
+ ContactInsuranceCompany(String companyName, Request request) : void
+ DisplayInsuranceCompanyValidation(int requestID) : void

Waste Management:

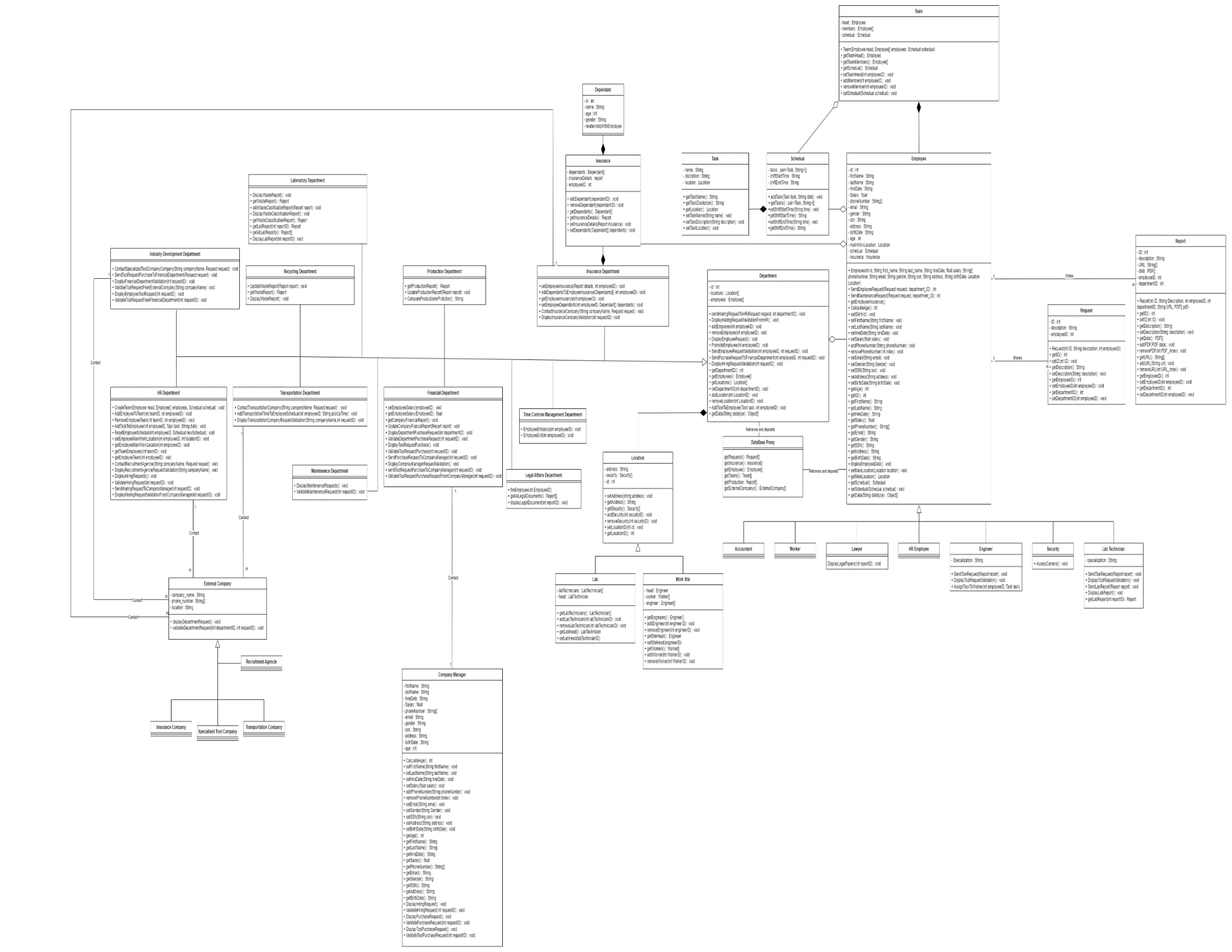
+ UpdateWasteReport(Report report) : void
+ getWasteReport() : Report
+ DisplayWasteReport() : void
+ getWasteReport() : Report
+ addWasteClasificationReport(Report report) : void
+ DisplayWasteClassificationReport() : void
+ getWasteClassificationReport() : Report

Scheduling Management:

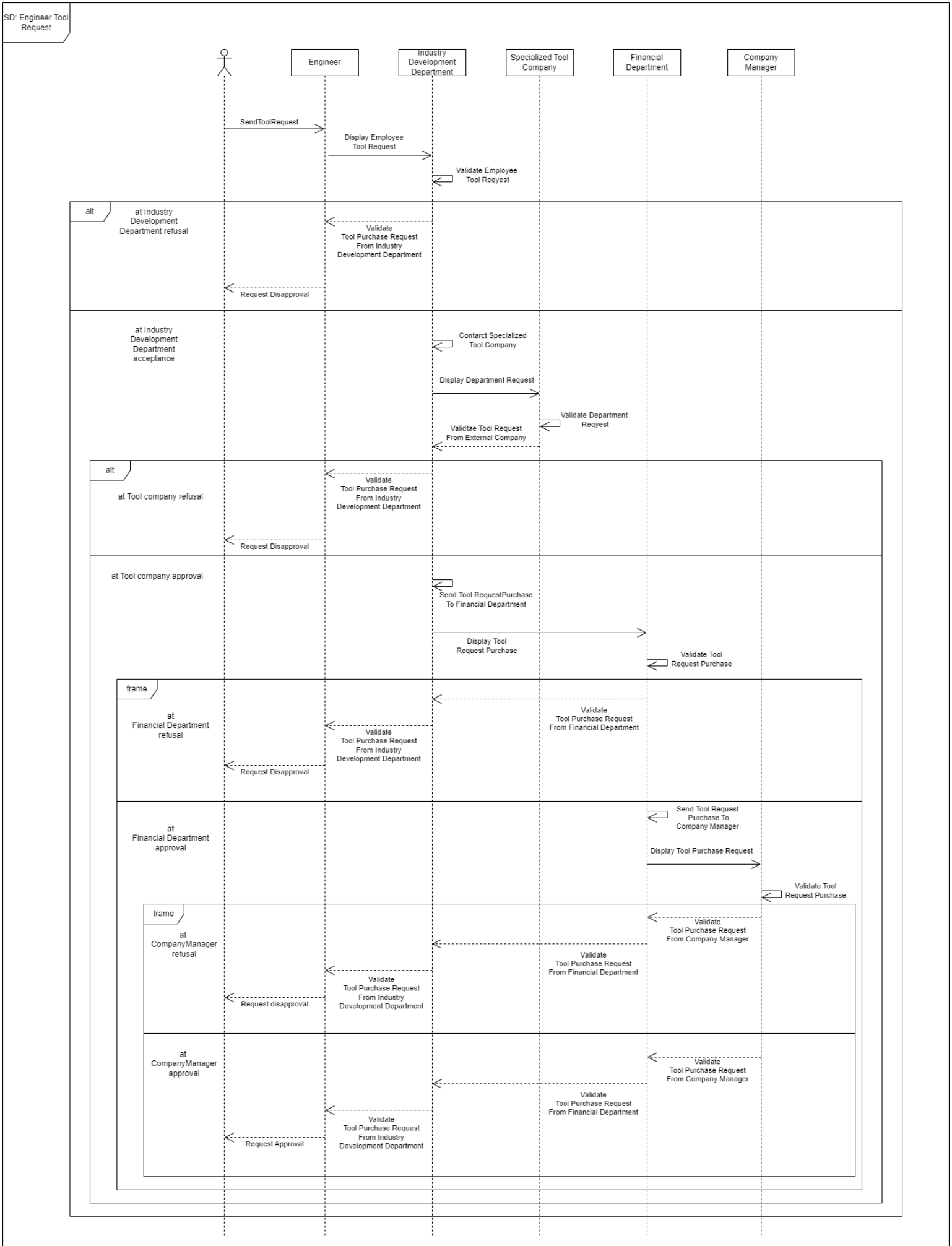
+ CreateTeam(Employee head, Employee[] employees, Schedual schedual) : void
+ AddEmployeeToTeam(int teamID, int employeeID) : void
+ RemoveEmployeeTeam(int teamID, int employeeID) : void
+ AddTaskToEmployee(int employeeID, Task task, String date) : void
+ ResetEmployeeSchedual(int employeeID, Schedual newSchedual) : void

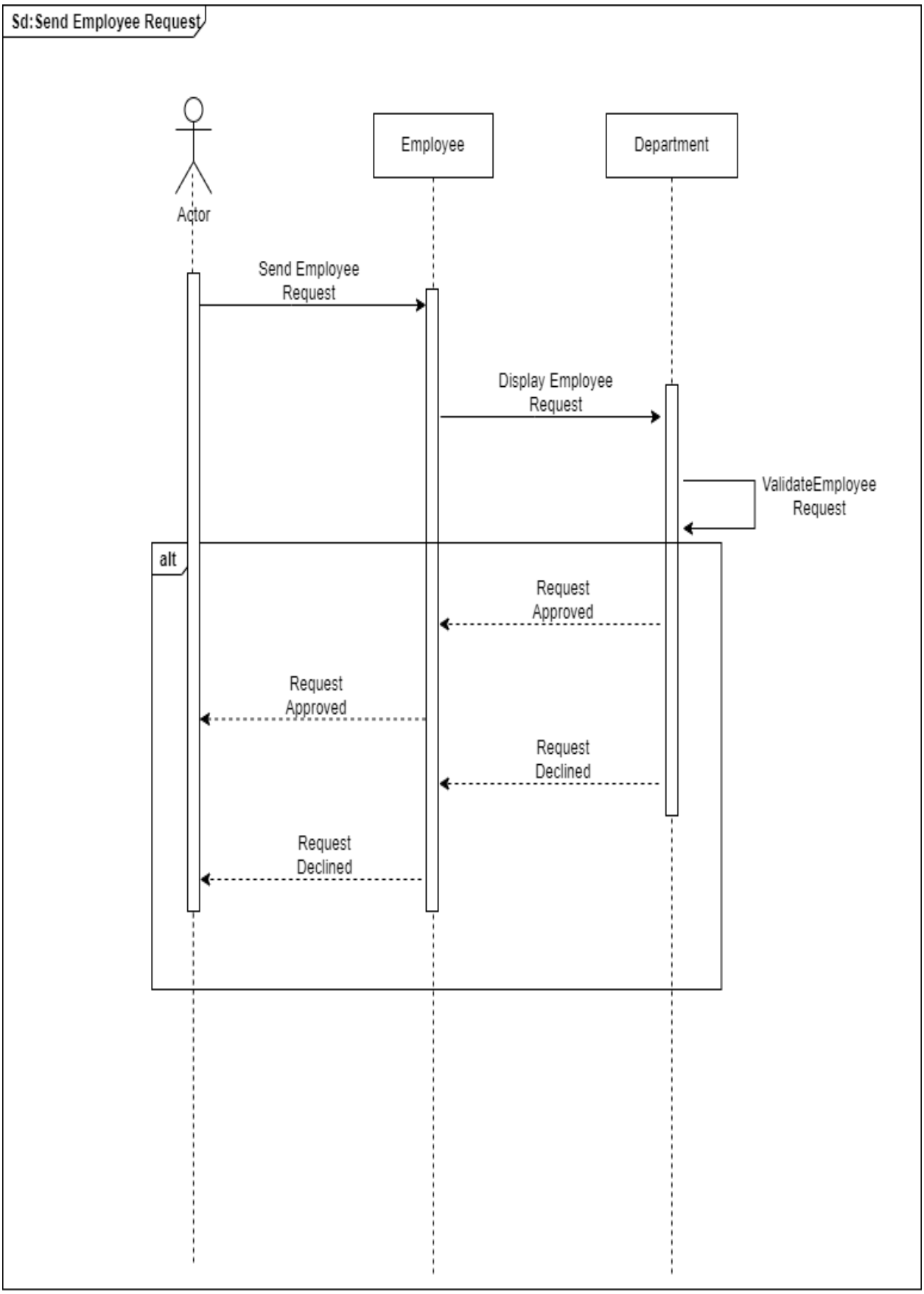
HR Management:

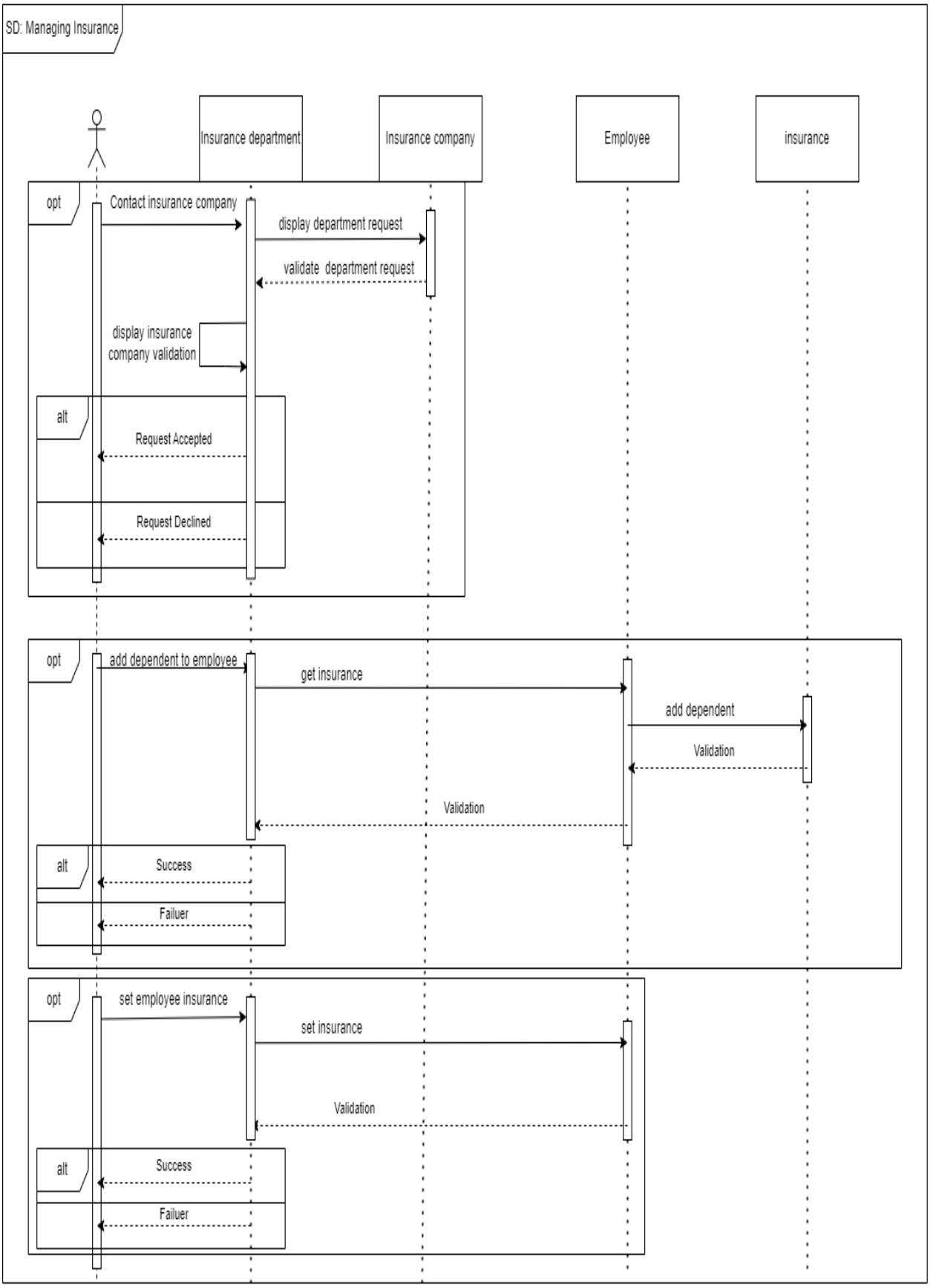
+ setEmployeeMainWorkLocation(int employeeID, int locationID) : void
+ getEmployeeMainWorkLocation(int employeeID) : void
+ getTeamEmployees(int teamID) : void
+ getEmployeeTeam(int employeeID) : void
+ ContactRecruitmentAgencie(String companyName, Request request) : void
+ DisplayRecruitmentAgencieRequestValidation(String companyName) : void
+ DisplayHiringRequests() : void
+ ValidateHiringRequest(int requestID) : void
+ SendHiaringRequestToCompanyManager(int requestID) : void
+ DisplayHiaringRequestValidationFromCompanyManager(int requestID) : void

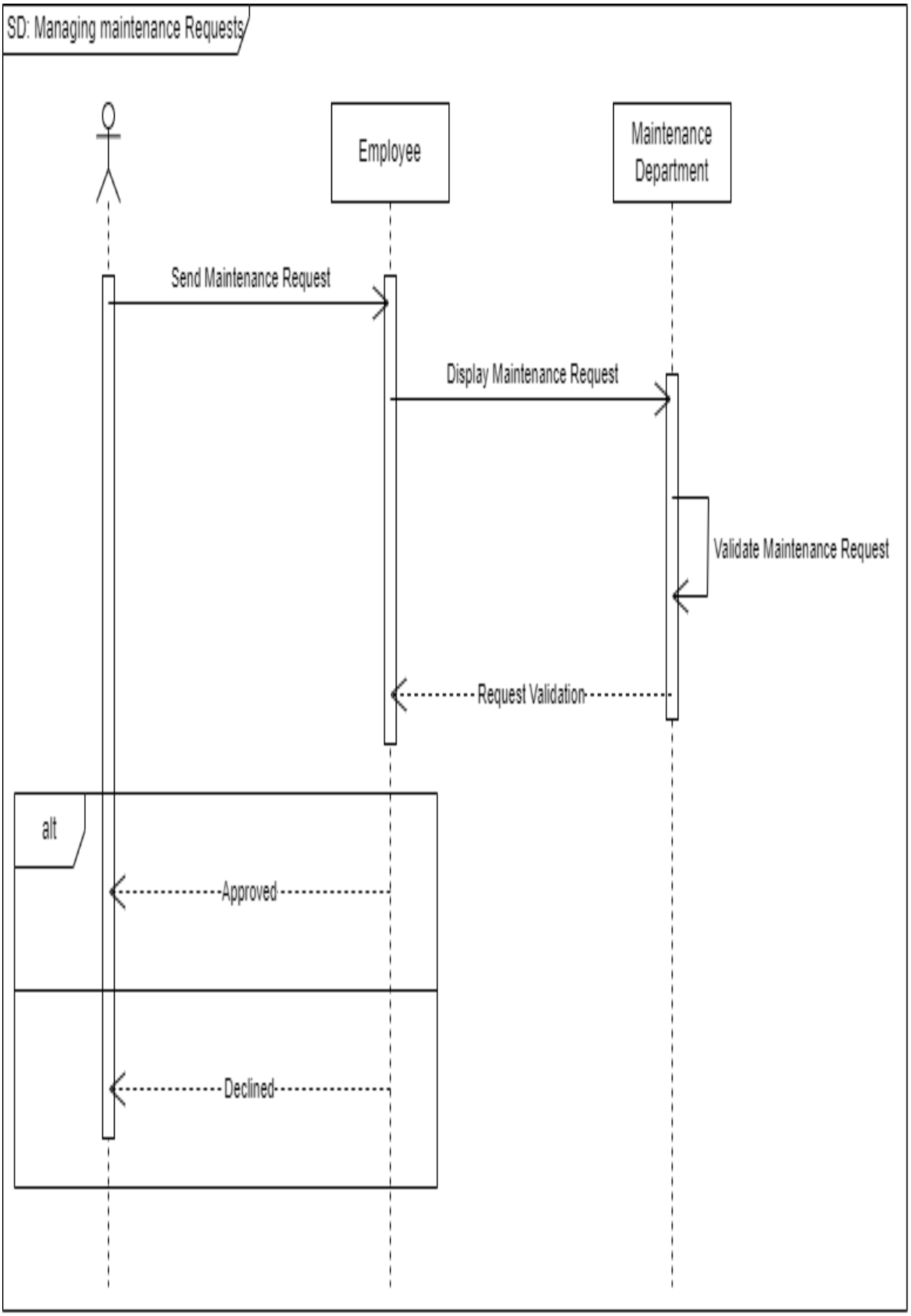

Team
- head : Employee
- members : Employee[]
- schedual : Schedual
+ Team(Employee head, Employee[] employees, Schedual schedual)
+ getTeamHead() : Employee
+ getTeamMembers() : Employee[]
+ getSchedual() : Schedual
+ setTeamHead(int employeeID) : void
+ addMemeber(int employeeID) : void
+ removeMemeber(int employeeID) : void
+ setSchedual(Schedual schedual) : void
Dependant
- id : int
- name : String
- age : int
- gender : String
- realtionshipWithEmployee
Insurance
- dependants : Dependant[]
- insuranceDetails : report
- employeeID : int
+ addDependant(dependantID) : void
+ removeDependant(dependantID) : void
+ getDependants() : Dependant[]
+ getInsuranceDetails() : Report
+ setInsuranceDetails(Report insurance) : void
+ setDependants(Dependant[] dependants) : void
Task
- name : String
- discription : String
- location : Location
+ getTaskName() : String
+ getTaskDiscription() : String
+ getLocation() : Location
+ setTaskName(String name) : void
+ setTaskDiscription(String discription) : void
+ setTaskLocation() : void
Schedual
- tasks : pair<Task, String>[]
- shiftStartTime : String
- shiftEndTime : String
+ addTask(Task task, String date) : void
+ getTasks() : pair<Task, String>[]
+ setShiftStartTime(String time) : void
+ getShiftStartTime() : String
+ setShiftEndTime(String time) : void
+ getShiftEndTime() : String
Employee
- id : int
- firstName : String
- lastName : String
- hireDate : String
- Salary : float
- phoneNumber : String[]
- email : String
- gender : String
- ssn : String
- address : String
- birthDate : String
- age : int
- mainWorkLocation : Location
- schedual : Schedual
- insurance : Insurance
+ Employee(int id, String first_name, String last_name, String hireDate, float salary, String[] phoneNumber, String email, String gender, String ssn, String address, String birthDate, Location Location)
+ SendEmployeeRequest(Request request, department_ID) : int
+ SendMaintenanceRequest(Request request, department_ID) : int
+ getEmployeeInsurance() :
+ CalculateAge() : int
+ setID(int id) : void
+ setFirstName(String firstName) : void
+ setLastName(String lastName) : void
+ setHireDate(String hireDate) : void
+ setSalary(float salary) : void
+ addPhoneNumber(String phoneNumber) : void
+ removePhoneNumber(int index) : void
+ setEmail(String email) : void
+ setGender(String Gender) : void
+ setSSN(String ssn) : void
+ setAddress(String address) : void
+ setBirthDate(String birthDate) : void
+ getAge() : int
+ getID() : int
+ getFirstName() : String
+ getLastName() : String
+ getHireDate() : String
+ getSalary() : float
+ getPhoneNumber() : String[]
+ getEmail() : String
+ getGender() : String
+ getSSN() : String
+ getAddress() : String
+ getBirthDate() : String
+ displayEmployeeData() : void
+ setMainLocation(Location location) : void
+ getMainLocation() : Location
+ getSchedual() : Schedual
+ setSchedual(Schedual schedual) : void
+ getDataString data(type : Object)
Report
- ID : int
- description : String
- URL : String[]
- data : PDF[]
- employeeID : int
- departmentID : int
+ Report(int ID, String Description, int employeeID, int departmentID, String URL, PDF[] pdf)
+ getID() : int
+ setID(int ID) : void
+ getDescription() : String
+ setDescription(String description) : void
+ getData() : PDF[]
+ addPDF(PDF data) : void
+ removePDF(int PDF_index) : void
+ getURL() : String[]
+ addURL(String url) : void
+ removeURL(int URL_index) : void
+ getEmployeeID() : int
+ setEmployeeID(int employeeID) : void
+ getDepartmentID() : int
+ setDepartmentID(int employeeID) : void
Writes
Request
- ID : int
- description : String
- employeeID : int
+ Request(int ID, String description, int employeeID)
+ getID() : int
+ setID(int ID) : void
+ getDescription() : String
+ setDescription(String description) : void
+ getEmployeeID() : int
+ setEmployeeID(int employeeID) : void
+ getDepartmentID() : int
+ setDepartmentID(int employeeID) : void
Makes
Department
- id : int
- locations : Location[]
- employees : Employee[]
+ sendHaitingRequestToHR(Request request, int departmentID) : void
+ DisplayHaitingRequestValidationFromHR() : void
+ addEmployee(int employeeID) : void
+ removeEmployee(int employeeID) : void
+ DisplayEmployeeRequest() : void
+ PromoteEmployee(int employeeID) : void
+ SendEmployeeRequestValidation(int employeeID, int requestID) : void
+ SendPurchaseRequestToFinancialDepartment(int employeeID, int requestID) : void
+ DisplayHiringRequestValidation(int requestID) : void
+ getDepartmentID() : int
+ getEmployees() : Employee[]
+ getLocations() : Location[]
+ setDepartmentID(int departmentID) : void
+ addLocation(int LocationID) : void
+ removeLocation(int LocationID) : void
+ AddToolToEmployee(Tool tool, int employeeID) : void
+ getDataString data(type : Object)
Retrieves and deposits
DataBase Proxy
getRequests() : Request[]
getInsurance() : Insurance[]
getEmployee() : Employee[]
getTeams() : Team[]
getProduction : Report[]
getExternalCompanys() : ExternalCompany[]
Retrieves and deposits
Location
- address : String
- security : Security[]
- id : int
+ setAddress(string address) : void
+ getAddress() : String
+ getSecurity() : Security[]
+ addSecurity(int securityID) : void
+ removeSecurity(int securityID) : void
+ setLocationID(int id) : void
+ getLocationID() : int
Lab
- labTechnicians : LabTechnician[]
- head : LabTechnician
+ getLabTechnicians() : LabTechnician[]
+ addLabTechnician(int labTechnicianID) : void
+ removeLabTechnician(int labTechnicianID) : void
+ getLabHead() : LabTechnician
+ setLabHead(labTechnicianID)
Work Site
- head : Engineer
- worker : Worker[]
- engineer : Engineer[]
+ getEngineers() : Engineer[]
+ addEngineer(int engineerID) : void
+ removeEngineer(int engineerID) : void
+ getSiteHead() : Engineer
+ setSiteHead(engineerID)
+ getWorkers() : Worker[]
+ addWorker(int WorkerID) : void
+ removeWorker(int WorkerID) : void
Accountant
Worker
Lawyer
+ DisputeLegalPapers(int reportID) : void
HR Employee
Engineer
- Specialization : String
+ SendToolRequest(Report report) : void
+ DisplayToolRequestValidation() : void
+ AssignTaskToWorker(int employeeID, Task task)
Security
+ AccessCamera() : void
Lab Technician
- specialization : String
+ SendToolRequest(Report report) : void
+ DisplayToolRequestValidation() : void
+ SendLabReportReport report) : void
+ Display(LabReport() : void
+ getLabReport(int reportID) : Report
Laboratory Department
+ Display(WasteReport() : void
+ getWasteReport() : Report
+ addWasteClassificationReport(Report report) : void
+ Display(WasteClassificationReport() : void
+ getWasteClassificationReport() : Report
+ getLabReport(int reportID) : Report
+ getAllLabReports() : Report[]
+ Display(LabReport(int reportID) : void
Industry Development Department
+ ContactSpecializedToolCompany(String companyName, Request request) : void
+ SendToolRequestPurchseToFinancialDepartment(Request request) : void
+ Display(FinancialDepartmentValidation(int requestID) : void
+ ValidateToolRequestFromExternalCompany(String companyName) : void
+ Display(EmployeeToolRequest(int requestID) : void
+ ValidateToolRequestFromFinancialDepartment(int requestID) : void
Recycling Department
+ UpdateWasteReport(Report report) : void
+ getWasteReport() : Report
+ Display(WasteReport() : void
Production Department
+ getProductionReport() : Report
+ UpdateProductionReport(Report report) : void
+ CalculateProductionPrediction() : String
Insurance Department
+ setEmployeeInsurance(Report details, int employeeID) : void
+ AddDependantsToEmployeeInsurance(Dependants[] int employeeID) : void
+ getEmployeeInsurance(int employeeID) : void
+ setEmployeeDependants(int employeeID, Dependant[] dependants) : void
+ ContactInsuranceCompany(String companyName, Request request) : void
+ DisplayInsuranceCompanyValidation(int requestID) : void
HR Department
+ CreateTeam(Employee head, Employee[] employees, Schedual schedual) : void
+ AddEmployeeToTeam(int teamID, int employeeID) : void
+ RemoveEmployeeTeam(int teamID, int employeeID) : void
+ AddTaskToEmployee(int employeeID, Task task, String date) : void
+ ResetEmployeeSchedual(int employeeID, Schedual newSchedual) : void
+ setEmployeeMainWorkLocation(int employeeID, int locationID) : void
+ getEmployeeMainWorkLocation(int employeeID) : void
+ getTeamEmployees(int teamID) : void
+ getEmployeeTeam(int employeeID) : void
+ ContactRecruitmentAgency(String companyName, Request request) : void
+ DisplayRecruitmentAgencyRequestValidation(String companyName) : void
+ Display(HiringRequests() : void
+ ValidateHiringRequest(int requestID) : void
+ SendHaitingRequestToCompanyManager(int requestID) : void
+ Display(HaitingRequestValidationFromCompanyManager(int requestID) : void
Transportation Department
+ ContactTranscoatationCompany(String companyName, Request request) : void
+ AddTransportationTimeToEmployeeSchedual(int employeeID, String pickUpTime) : void
+ DisplayTranscoatationCompanyRequestValidation(String companyName,int requestID) : void
Financial Department
+ setEmployeeSalary(employeeID) : void
+ getEmployeeSalary(EmployeeID) : float
+ getCompanyFinancialReport() : void
+ UpdateCompanyFancialReport(Report report) : void
+ DisplayDepartmentPurchaseRequest(int departmentID) : void
+ ValidateDepartmentPurchaseRequest(int requestID) : void
+ DisplayToolRequestPurchase() : void
+ ValidateToolRequestPurchase(int requestID) : void
+ SendPurchaseRequestToCompanyManager(int requestID) : void
+ DisplayCompanyManagerRequestValidation() : void
+ sendToolRequestPurchaseToCompanyManager(int requestID) : void
+ ValidateToolRequestPurchaseRequestFromCompanyManager(int requestID) : void
Time Controle Management Department
+ EmployeeEntrance(int employeeID) : void
+ EmployeeExit(int employeeID) : void
Legal Affairs Department
+ fireEmployee(int EmployeeID)
+ getAllLegalDocuments() : Report[]
+ display(LegalDocument(int reportID) : void
Maintenance Department
+ Display(MaintenanceRequests() : void
+ ValidateMaintenanceRequest(int requestID) : void
External Company
- company_name : String
- phone_number : String[]
- location : String
+ display(DepartmentRequest() : void
+ validateDepartmentRequest(int departmentID, int requestID) : void
Recruitment Agencie
Insurance Company
Specialized Tool Company
Transportation Company
Company Manager
- firstName : String
- lastName : String
- hireDate : String
- Salary : float
- phoneNumber : String[]
- email : String
- gender : String
- ssn : String
- address : String
- birthDate : String
- age : int
+ CalculateAge() : int
+ setFirstName(String firstName) : void
+ setLastName(String lastName) : void
+ setHireDate(String hireDate) : void
+ setSalary(float salary) : void
+ addPhoneNumber(String phoneNumber) : void
+ removePhoneNumber(int index) : void
+ setEmail(String email) : void
+ setGender(String Gender) : void
+ setSSN(String ssn) : void
+ setAddress(String address) : void
+ setBirthDate(String birthDate) : void
+ getAge() : int
+ getFirstName() : String
+ getLastName() : String
+ getHireDate() : String
+ getSalary() : float
+ getPhoneNumber() : String[]
+ getEmail() : String
+ getGender() : String
+ getSSN() : String
+ getAddress() : String
+ getBirthDate() : String
+ DisplayHiringRequest() : void
+ ValidateHiringRequest(int requestID) : void
+ DisplayPurchaseRequest() : void
+ ValidatePurchaseRequest(int requestID) : void
+ DisplayToolPurchaseRequest() : void
+ ValidateToolPurchaseRequest(int requestID) : void
Contact
Contact
Contact
Contact
Contact
Contact
Contact
Contact
1
m
1
m
1
m
1
m
1
m
1
m
1
m
1
m

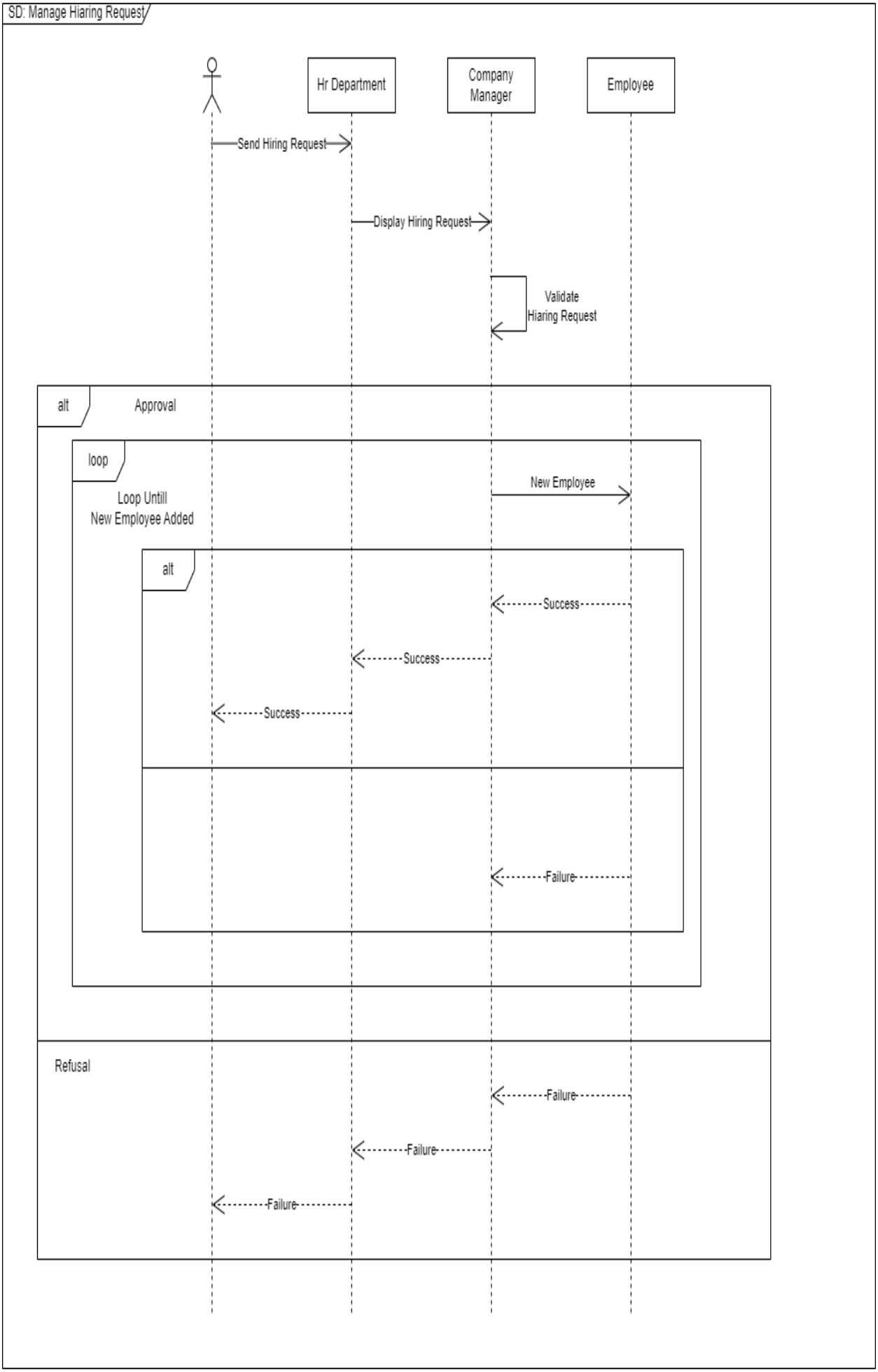
	Employee	Accountant	Worker	Lawyer	HR Employee	Engineer	Security	Lab Technician	Request	Report	Team	Schedual	Task	Insurance	Dependent	Insurance Department	Location	Lab	Work Site	Department	Time Control Managment Department	Leagl Affairs Department	Comapny Manger	Financail Department	Production Department	Laboratory Department	Recycling Department	Industry Development Department	HR Department	Transportation Department	Maintenance Department	External Company	Rercuitment Agenice	Transportaion Comapny	Specialized tool compay	Insurance comapny	DataBase Proxy
Send Emloyee Request	T	T	T	T	T	T	T	T	T																											T
ManageHiring Requests																							T										T			T
Display	T	T	T	T	T	T	T	T				T	T																							T
Monitoring Work Entry and departure times for employees																					T															T
Comparing Production with prediction																									T											T
Contact Specialized tool company																								T										T		T
Manging Employee salary																								T												T
Display The company financial position																								T												T
Validate tool request																								T			T									T
Send Tool request						T		T	T	T																	T									T
Display Legal issues				T																		T														T
Veiw Tool Request						T			T																												T
Determing workplace of employees													T																T							T
Manging Shift distribution												T																	T							T
Manging work teams											T																		T							T
Send Maintance Request	T								T																					T						T
Applying Legal Actions																						T														T
Access Cameras							T																													T
Send lab report								T		T																T										T
Classify produced waste										T																T										T
Display lab reports								T		T																T										T
Manging Waste recycling																											T									T
Displaying amount of waste produced																											T									T
Manging Insurance														T		T																			T	T
Contacting Transportation companies																														T				T		T
Manging Employee Transportation																														T						T
Manage Employee request																				T																T
Manage employee promotion																				T																T
Manage Employee request																				T																T
Mange Task distribution													T							T																T
Send hiring request																				T																


SD: Engineer Tool Request
Engineer
Industry Development Department
Specialized Tool Company
Financial Department
Company Manager
SendToolRequest
Display Employee Tool Request
Validate Employee Tool Reqyest
alt
at Industry Development Department refusal
Validate Tool Purchase Request From Industry Development Department
Request Disapproval
at Industry Development Department acceptance
Contarct Specialized Tool Company
Display Department Request
Validate Department Reqyest
Validtae Tool Request From External Company
alt
at Tool company refusal
Validate Tool Purchase Request From Industry Development Department
Request Disapproval
at Tool company approval
Send Tool RequestPurchase To Financial Department
Display Tool Request Purchase
Validate Tool Request Purchase
frame
at Financial Department refusal
Validate Tool Purchase Request From Financial Department
Validate Tool Purchase Request From Industry Development Department
Request Disapproval
at Financial Department approval
Send Tool Request Purchase To Company Manager
Display Tool Purchase Request
Validate Tool Request Purchase
frame
at CompanyManager refusal
Validate Tool Purchase Request From Company Manager
Validate Tool Purchase Request From Financial Department
Validate Tool Purchase Request From Industry Development Department
Request disapproval
at CompanyManager approval
Validate Tool Purchase Request From Company Manager
Validate Tool Purchase Request From Financial Department
Validate Tool Purchase Request From Industry Development Department
Request Approval


Sd: Send Employee Request
Actor
Employee
Department
Send Employee Request
Display Employee Request
ValidateEmployee Request
alt
Request Approved
Request Approved
Request Declined
Request Declined

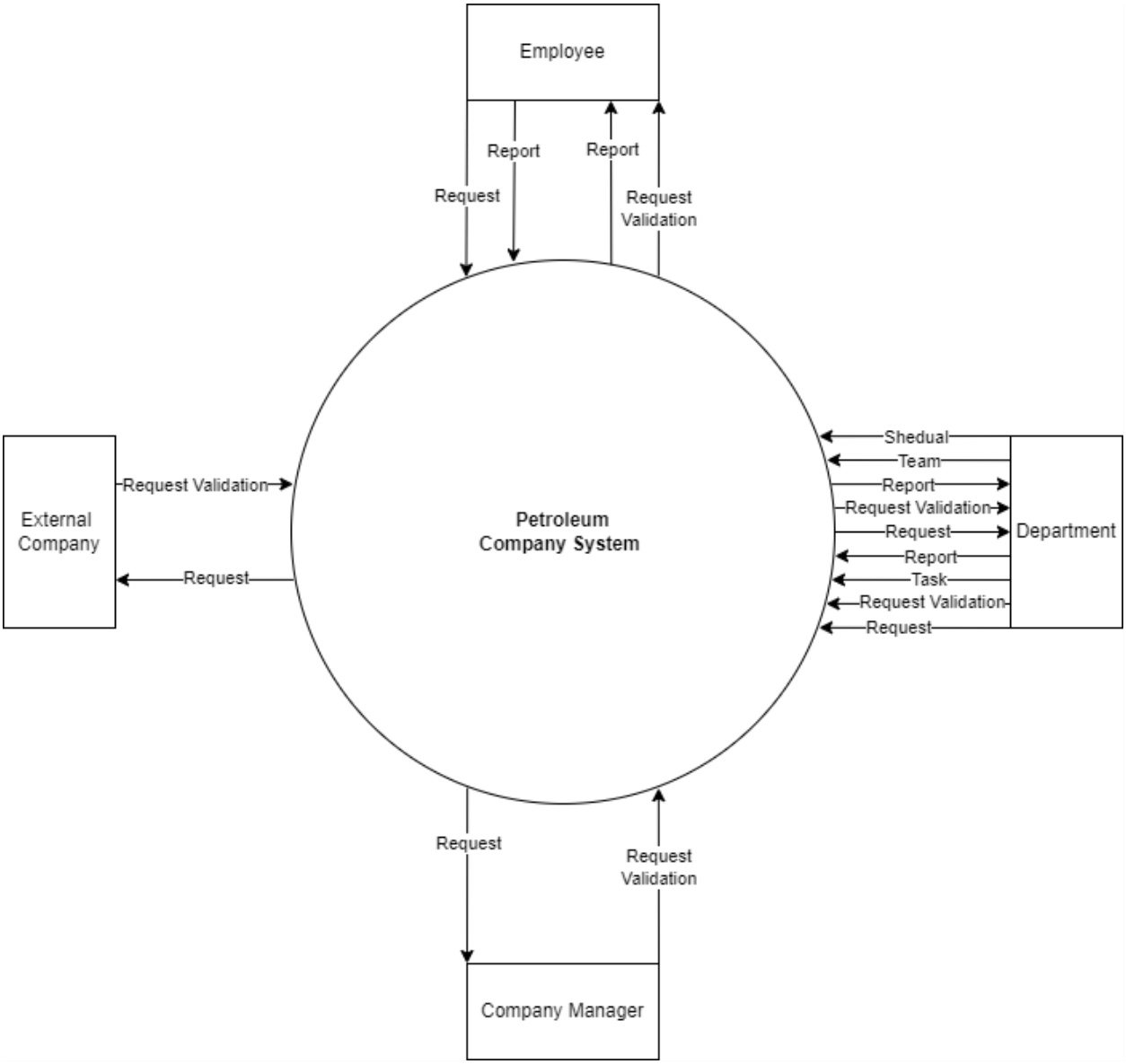

SD: Managing Insurance
Insurance department
Insurance company
Employee
insurance
opt
Contact insurance company
display department request
validate department request
display insurance company validation
alt
Request Accepted
Request Declined
opt
add dependent to employee
get insurance
add dependent
Validation
Validation
alt
Success
Failuer
opt
set employee insurance
set insurance
Validation
alt
Success
Failuer


SD: Managing maintenance Requests
Employee
Maintenance Department
Send Maintenance Request
Display Maintenance Request
Validate Maintenance Request
Request Validation
alt
Approved
Declined

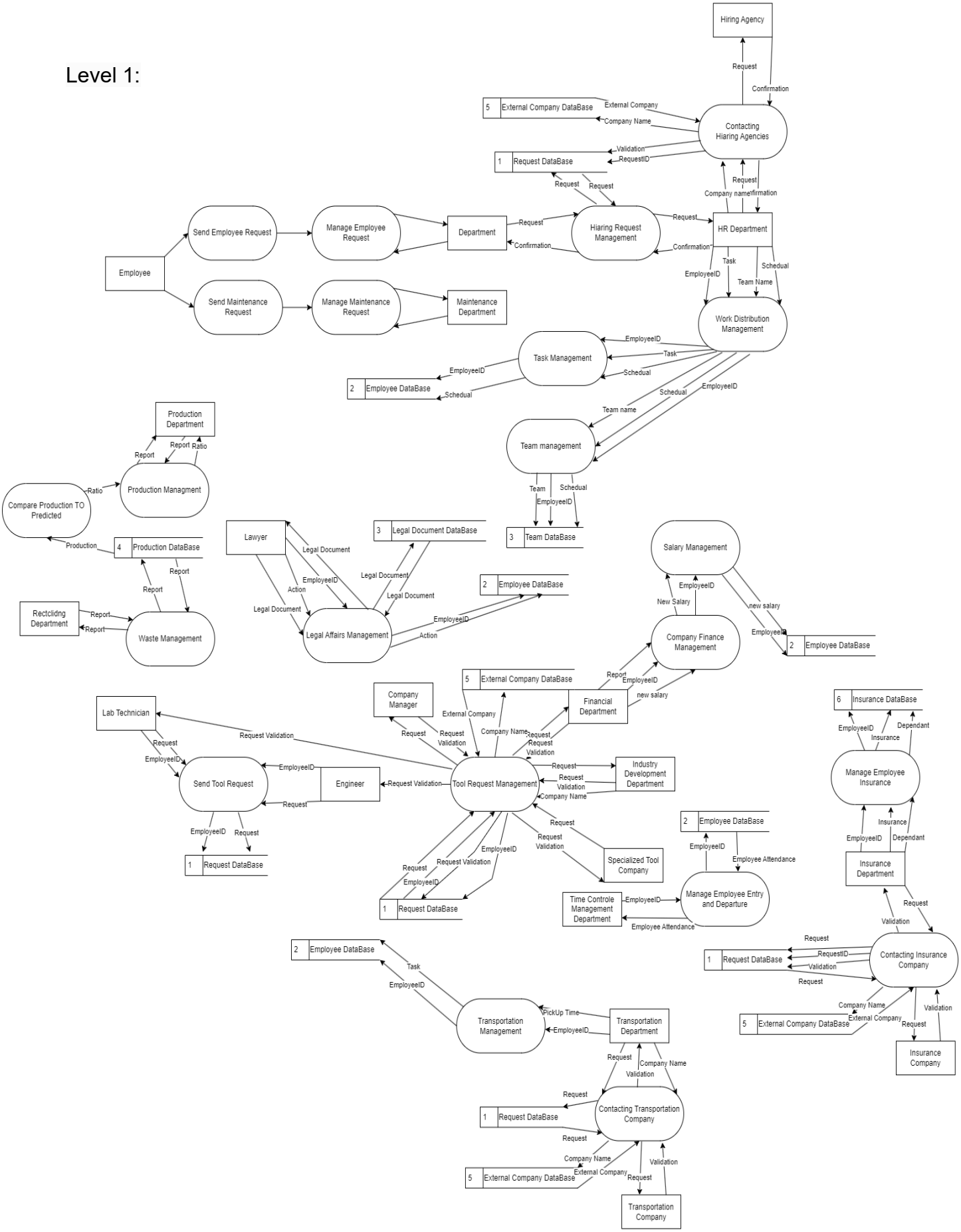

SD: Manage Hiaring Request
Hr Department
Company Manager
Employee
Send Hiring Request
Display Hiring Request
Validate Hiaring Request
alt
Approval
loop
Loop Untill New Employee Added
New Employee
alt
Success
Success
Success
Failure
Refusal
Failure
Failure
Failure

Dataflow Diagram

Level 0:



Level 1:


Hiring Agency
Request
Confirmation
5 External Company DataBase
External Company
Company Name
Contacting Hiaring Agencies
Validation
RequestID
1 Request DataBase
Request
Request
Company name
firmation
Send Employee Request
Manage Employee Request
Department
Request
Confirmation
Hiaring Request Management
Request
Confirmation
HR Department
Employee
Send Maintenance Request
Manage Maintenance Request
Maintenance Department
Task
Scheduel
EmployeeID
Team Name
Work Distribution Management
EmployeeID
Task
Scheduel
Task Management
EmployeeID
2 Employee DataBase
Scheduel
Scheduel
EmployeeID
Team name
Team management
Team
Scheduel
EmployeeID
3 Team DataBase
Production Department
Report
Report
Ratio
Production Managment
Ratio
Compare Production TO Predicted
Production
4 Production DataBase
Report
Report
Rectclidng Department
Report
Report
Waste Management
Lawyer
Legal Document
3 Legal Document DataBase
Legal Document
EmployeeID
Action
Legal Document
Legal Document
Legal Affairs Management
2 Employee DataBase
EmployeeID
Action
Salary Management
EmployeeID
New Salary
new salary
Company Finance Management
EmployeeID
2 Employee DataBase
5 External Company DataBase
Report
EmployeeID
new salary
Financial Department
Company Manager
External Company
Company Name
Request
Request Validation
Request
Request Validation
Lab Technician
Request Validation
Request
EmployeeID
Send Tool Request
EmployeeID
Engineer
Request Validation
Request
Tool Request Management
Request
Request Validation
Company Name
Industry Development Department
EmployeeID
Request
1 Request DataBase
Request
Request Validation
EmployeeID
Specialized Tool Company
Request
Request Validation
EmployeeID
1 Request DataBase
2 Employee DataBase
EmployeeID
Employee Attendance
Manage Employee Entry and Departure
Time Controle Management Department
EmployeeID
Employee Attendance
6 Insurance DataBase
EmployeeID
Insurance
Dependant
Manage Employee Insurance
Insurance
EmployeeID
Dependant
Insurance Department
Request
Validation
Request
1 Request DataBase
RequestID
Validation
Request
Contacting Insurance Company
Company Name
External Company
5 External Company DataBase
Request
Validation
Insurance Company
2 Employee DataBase
Task
EmployeeID
Transportation Management
PickUp Time
EmployeeID
Transportation Department
Request
Company Name
Validation
Request
1 Request DataBase
Contacting Transportation Company
Request
Company Name
External Company
5 External Company DataBase
Validation
Request
Transportation Company