אוניברסיטת בן-גוריון בנגב
Ben-Gurion University of the Negev

הפקולטה למדעי ההנדסה
המחלקה להנדסת מערכות מידע

Faculty of Engineering Sciences
Dept. of Information Systems Engineering

“Superly” – HR Module

Requirements specification

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1. Functional Requirements

ID	Module	Description	Priority	Risk	Status	Feasable
1.	HR	The system **MUST** support management of employees.	MH	Low	Done	Yes
2.	HR	The system **MUST** support management of licenses for carriers.	MH	Low	Done	Yes
3.	HR	The system **MUST** store employees information	MH	Low	Postponed	No (this release doesn't handle storage)
4.	HR	The system **MUST** support management of shifts.	MH	High	Done	Yes
5.	HR	The system **CANNOT** allow creation of shifts without a shift manager	MH	Low	Done	Yes
6.	HR	The user **SHOULD** be able to edit how many workers of each type each shift needs	NTH	Low	Done	Yes
7.	HR	The system **CANNOT** allow creation of shifts with no carriers, cashiers, storekeepers or sorters	MH	High	In Progress	Yes
8.	HR	The system **MUST** show which employees are available for each shift when scheduling	MH	High	Done	Yes
9.	HR	The system **SHOULD** show how many shifts each available employee has done the past month for each shift type	NTH	High	Done	Yes
10.	HR	The system **MUST** store shift history	MH	Low	Postponed	No
11.						
12.						
13.						

2. Non-Functional Requirements

ID	Module	Description	Priority	Risk	Status	Feasable
1.	HR	Employee information consist of ID, Name, Bank details, Salary, Employment conditions, Starting date, Certifications	MH	High	Done	Yes
2.	HR	Each employee has 1 job title. Job titles are Cashier, Storekeeper, Carrier, Sorter, HR Manager, Logistics Manager	MH	Low	Done	Yes
3.	HR	Shift types are Morning shift, Evening shift	MH	Low	Done	Yes
4.	HR	Managerial employees work morning shifts only	MH	Low	Done	Yes
5.						
6.						
7.						
8.						
9.						
10.						
11.						

Appendix A Terms

Table 1: Terms

#	Term	Description
1.	Management	Set of action which include creation, editing (information) and removal of defined class.
2.		
3.		
4.		

Appendix B Open Questions

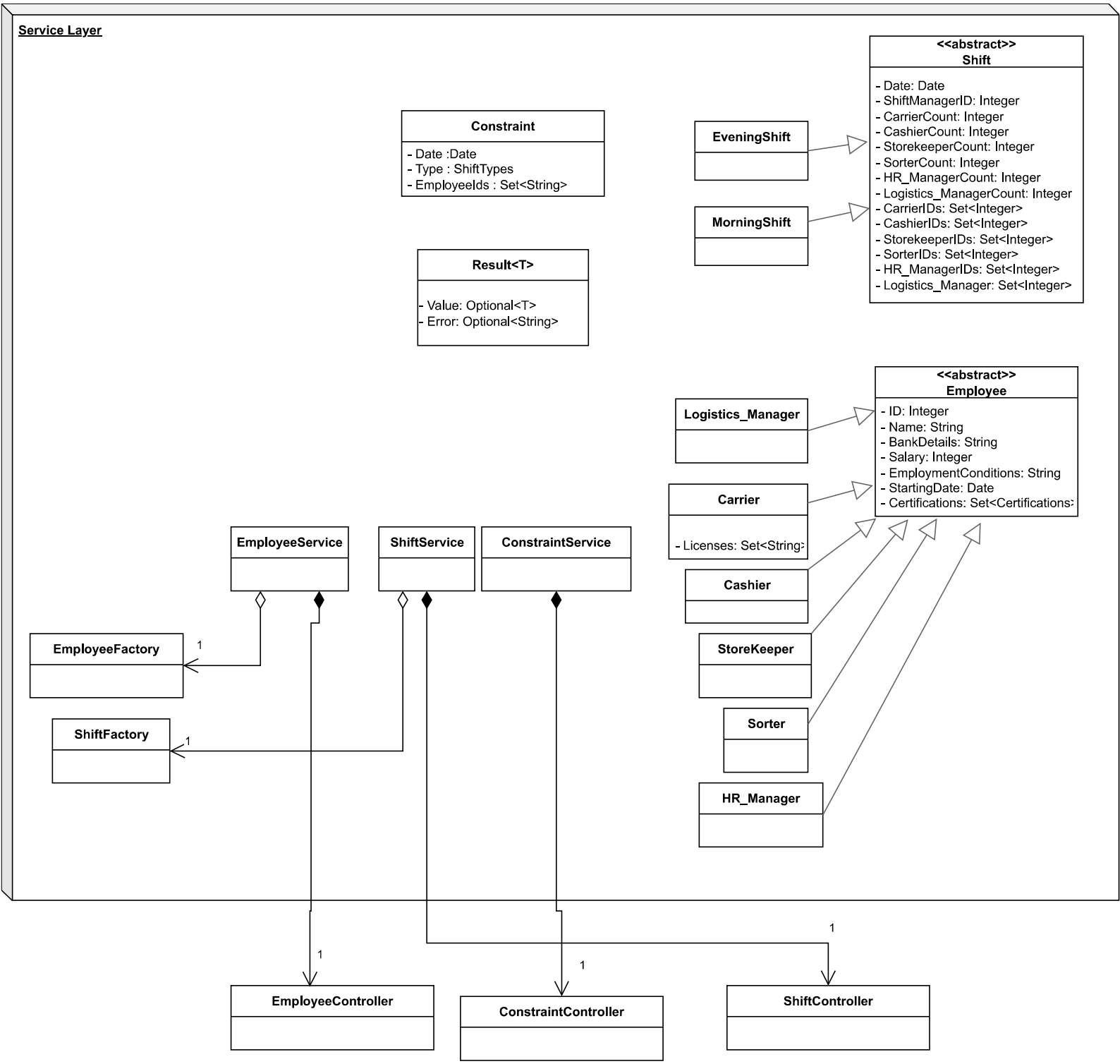
Table 2: Terms

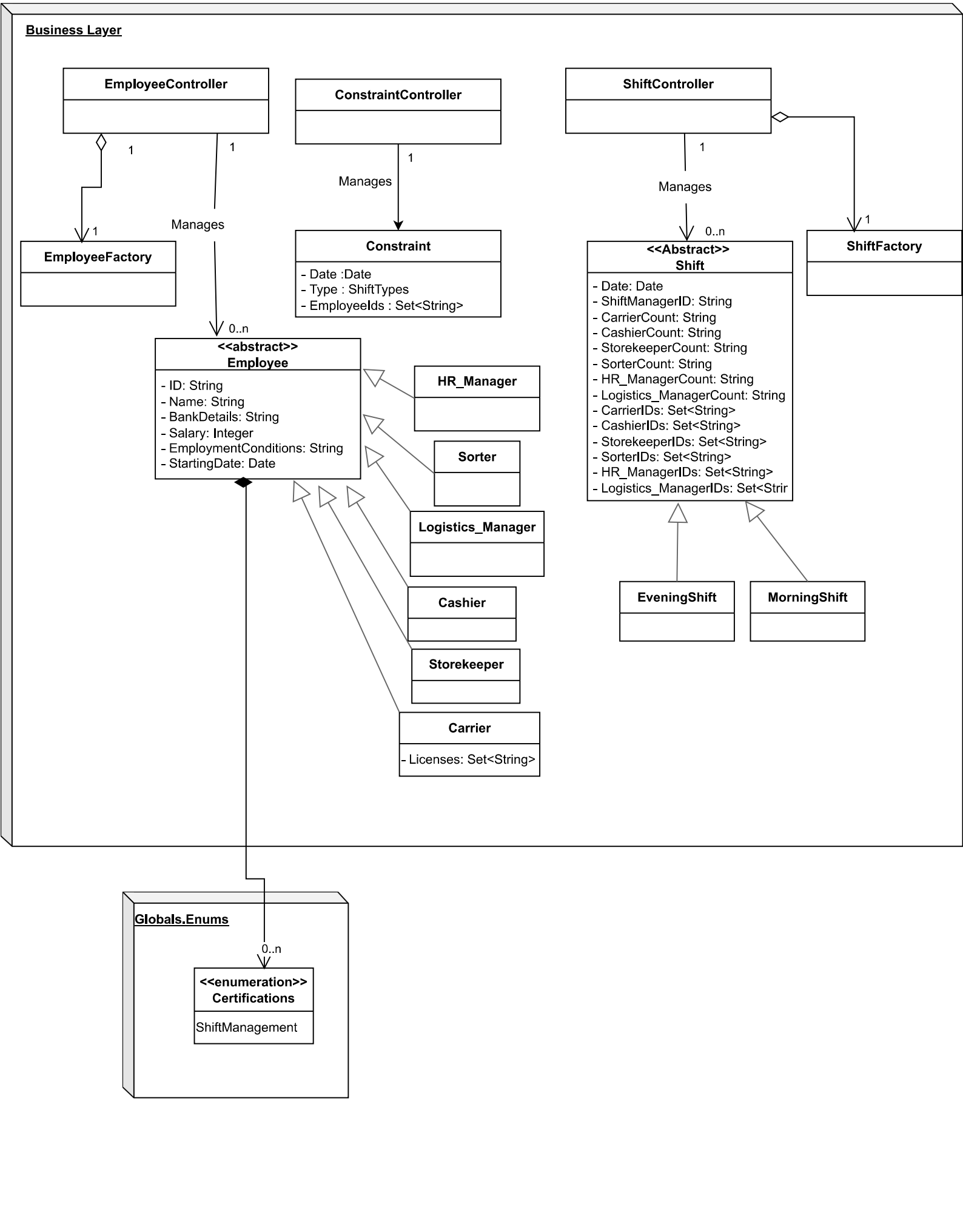
#	Topic	Issue
1.		
2.		
3.		

Version History

Table 3: Version History

Date	Author	Remarks
25/04/2022	Roi Tiefenbrunn	First draft


Service Layer
<<abstract>>
Shift
- Date: Date
- ShiftManagerID: Integer
- CarrierCount: Integer
- CashierCount: Integer
- StorekeeperCount: Integer
- SorterCount: Integer
- HR_ManagerCount: Integer
- Logistics_ManagerCount: Integer
- CarrierIDs: Set<Integer>
- CashierIDs: Set<Integer>
- StorekeeperIDs: Set<Integer>
- SorterIDs: Set<Integer>
- HR_ManagerIDs: Set<Integer>
- Logistics_Manager: Set<Integer>
Constraint
- Date :Date
- Type : ShiftTypes
- EmployeeIds : Set<String>
EveningShift
MorningShift
Result<T>
- Value: Optional<T>
- Error: Optional<String>
<<abstract>>
Employee
- ID: Integer
- Name: String
- BankDetails: String
- Salary: Integer
- EmploymentConditions: String
- StartingDate: Date
- Certifications: Set<Certifications>
Logistics_Manager
Carrier
- Licenses: Set<String>
Cashier
StoreKeeper
Sorter
HR_Manager
EmployeeService
ShiftService
ConstraintService
EmployeeFactory
ShiftFactory
1
1
1
1
1
1
EmployeeController
ConstraintController
ShiftController


Business Layer
EmployeeController
ConstraintController
ShiftController
1
1
1
1
1
Manages
Manages
Manages
1
1
0..n
EmployeeFactory
Constraint
- Date :Date
- Type : ShiftTypes
- EmployeeIds : Set<String>
<<Abstract>>
Shift
- Date: Date
- ShiftManagerID: String
- CarrierCount: String
- CashierCount: String
- StorekeeperCount: String
- SorterCount: String
- HR_ManagerCount: String
- Logistics_ManagerCount: String
- CarrierIDs: Set<String>
- CashierIDs: Set<String>
- StorekeeperIDs: Set<String>
- SorterIDs: Set<String>
- HR_ManagerIDs: Set<String>
- Logistics_ManagerIDs: Set<Strir
ShiftFactory
0..n
<<abstract>>
Employee
- ID: String
- Name: String
- BankDetails: String
- Salary: Integer
- EmploymentConditions: String
- StartingDate: Date
HR_Manager
Sorter
Logistics_Manager
Cashier
Storekeeper
Carrier
- Licenses: Set<String>
EveningShift
MorningShift
Globals.Enums
0..n
<<enumeration>>
Certifications
ShiftManagement

MorningShift1 - MorningShift

- Date: 27-05-2022
- ShiftManagerID: 3
- CarrierCount: 1
- CashierCount: 1
- StorekeeperCount: 0
- SorterCount: 0
- HR_ManagerCount: 0
- Logistics_ManagerCount: 0
- CarrierIDs: [13]
- CashierIDs: [3]
- StorekeeperIDs: []
- SorterIDs: []
- HR_ManagerIDs: []
- Logistics_ManagerIDs: []

EveningShift1 - EveningShift

- Date: 25-04-2022
- ShiftManagerID: 3
- CarrierCount: 1
- CashierCount: 2
- StorekeeperCount: 0
- SorterCount: 0
- HR_ManagerCount: 0
- Logistics_ManagerCount: 0
- CarrierIDs: [13]
- CashierIDs: [3,11]
- StorekeeperIDs: []
- SorterIDs: []
- HR_ManagerIDs: []
- Logistics_ManagerIDs: []

Ein - Carrier

- ID: 13
- Name: Ein
- BankDetails:A 252
- Salary: 30000
- EmploymentConditions:
"ID: 13
Job Title: Carrier
Starting Date: 16-08-2021
Salary per shift: 30000"
- StartingDate: 16-08-2021
- Certifications : []
- Licenses: [car,Bimba]

Roi - Cashier

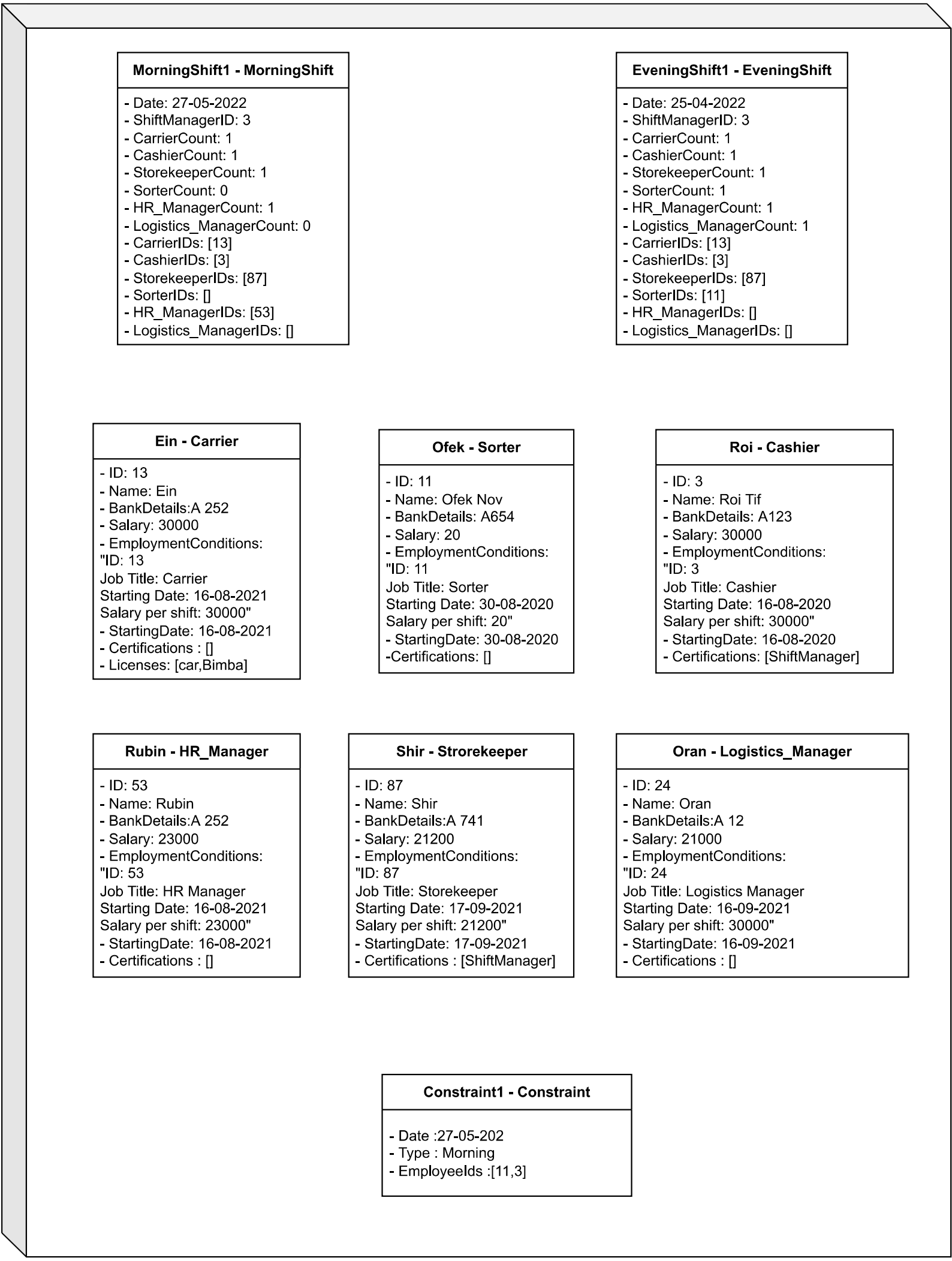
- ID: 3
- Name: Roi Tif
- BankDetails: A123
- Salary: 30000
- EmploymentConditions:
"ID: 3
Job Title: Cashier
Starting Date: 16-08-2020
Salary per shift: 30000"
- StartingDate: 16-08-2020
- Certifications: [ShiftManager]

Ofek - Cashier

- ID: 11
- Name: Ofek Nov
- BankDetails: A654
- Salary: 20
- EmploymentConditions:
"ID: 11
Job Title: Cashier
Starting Date: 30-08-2020
Salary per shift: 20"
- StartingDate: 30-08-2020
-Certifications: []

Constraint1 - Constraint

- Date :27-05-202
- Type : Morning
- EmployeeIds :[11]


MorningShift1 - MorningShift
- Date: 27-05-2022
- ShiftManagerID: 3
- CarrierCount: 1
- CashierCount: 1
- StorekeeperCount: 1
- SorterCount: 0
- HR_ManagerCount: 1
- Logistics_ManagerCount: 0
- CarrierIDs: [13]
- CashierIDs: [3]
- StorekeeperIDs: [87]
- SorterIDs: []
- HR_ManagerIDs: [53]
- Logistics_ManagerIDs: []
EveningShift1 - EveningShift
- Date: 25-04-2022
- ShiftManagerID: 3
- CarrierCount: 1
- CashierCount: 1
- StorekeeperCount: 1
- SorterCount: 1
- HR_ManagerCount: 1
- Logistics_ManagerCount: 1
- CarrierIDs: [13]
- CashierIDs: [3]
- StorekeeperIDs: [87]
- SorterIDs: [11]
- HR_ManagerIDs: []
- Logistics_ManagerIDs: []
Ein - Carrier
- ID: 13
- Name: Ein
- BankDetails:A 252
- Salary: 30000
- EmploymentConditions:
"ID: 13
Job Title: Carrier
Starting Date: 16-08-2021
Salary per shift: 30000"
- StartingDate: 16-08-2021
- Certifications : []
- Licenses: [car,Bimba]
Ofek - Sorter
- ID: 11
- Name: Ofek Nov
- BankDetails: A654
- Salary: 20
- EmploymentConditions:
"ID: 11
Job Title: Sorter
Starting Date: 30-08-2020
Salary per shift: 20"
- StartingDate: 30-08-2020
-Certifications: []
Roi - Cashier
- ID: 3
- Name: Roi Tif
- BankDetails: A123
- Salary: 30000
- EmploymentConditions:
"ID: 3
Job Title: Cashier
Starting Date: 16-08-2020
Salary per shift: 30000"
- StartingDate: 16-08-2020
- Certifications: [ShiftManager]
Rubin - HR_Manager
- ID: 53
- Name: Rubin
- BankDetails:A 252
- Salary: 23000
- EmploymentConditions:
"ID: 53
Job Title: HR Manager
Starting Date: 16-08-2021
Salary per shift: 23000"
- StartingDate: 16-08-2021
- Certifications : []
Shir - Strorekeeper
- ID: 87
- Name: Shir
- BankDetails:A 741
- Salary: 21200
- EmploymentConditions:
"ID: 87
Job Title: Storekeeper
Starting Date: 17-09-2021
Salary per shift: 21200"
- StartingDate: 17-09-2021
- Certifications : [ShiftManager]
Oran - Logistics_Manager
- ID: 24
- Name: Oran
- BankDetails:A 12
- Salary: 21000
- EmploymentConditions:
"ID: 24
Job Title: Logistics Manager
Starting Date: 16-09-2021
Salary per shift: 30000"
- StartingDate: 16-09-2021
- Certifications : []
Constraint1 - Constraint
- Date :27-05-202
- Type : Morning
- EmployeeIds :[11,3]