Class Diagram *ProblemDomain*

Schedule
- -shifts:Shift[]
- -activeDate:Date
- -duration:int
- -creator:Supervisor
- -description:String

- +newSched:Schedule
- +removeShift:void
- +addShift:void
- +getAllShifts:Shift[]
- +newSched:Schedule[
- +removeAllShifts:void
- +replaceShift:void
- +setAvailability:void

Shift
- -StartTime:Date
- -EndTime:Date
- -job:String
- -Location:String
- -supervisor:Superviso

- +newShift:Shift
- +getTimes:date[]

JobType
- -jobName:String
- -jobDescription:String

- +addJobType:void
- +removeJobType:voi

Event
- -empType:JobType
- -workgroup:Workgrou
- -startDate:Date
- -endDate:Date
- -description:String

- +newEvent:void
- +removeEvent:void

Employee
- -empId:int
- -fName:String
- -lName:String
- -username:String
- -password:String
- -active:boolean
- -plevel:PermissionSet

- +getShifts:Shift[]
- +getLoginTimes:void
- +getViewTimes:void
- +getAvailability:String
- +getCredentials:String
- +getDaysOff:int
- +setDaysOff:void

PermissionSet
- -plevel:int
- -canReadSched:boolean
- -canReadOldSched:boolean
- -canEditSched:boolean
- -canViewResources:boolean
- -canChangePermissions:boolean
- -canReadLogs:boolean
- -canAccessReports:boolean
- -canRequestDaysOff:boolean
- -maxDaysOff:int
- -canTakeVacations:boolean
- -maxVacationDays:int
- -canTakeEmergencyDays:boolea
- -canViewInactiveEmps:boolean
- -canSendNotifications:boolean
- -trusted:boolean
- -preferredRank:int

Workgroup
- -employees:Employee[]
- -supervisor:Supervisor
- -name:String

- +getWorkgroup:Workgrou

Notification
- -wasViewed:boolean
- -message:String
- -type:String

- +sendNotification:voi
- +sendNotification:voi
- +sendNotification:voi
- +sendNotification:voi

Supervisor
- -employees:int[]
- -workgroupList:Workgroup

SystemSettings
- -shiftRequestCutoff:int
- -minShiftDuration:String
- -availabilityChangeHold:int
- -maxEmergencyDuration:in

Relationships:
- Schedule 0..* belongs to — contains 1..* Shift
- JobType 1 has
- JobType 0..1 applies to / 0..* may have
- Shift 0..* has / 1 belongs to Employee
- Employee 0..* applies to Event
- Event 0..* may have / 0..1 applies to Workgroup
- PermissionSet 1 has / 0..* applies to Employee
- Employee 0..* contains / 1 is part of Workgroup
- Employee 1..* is in charge of
- Notification 0..1 is sent to / 0..* receives
- Workgroup 1..* supervises
- Workgroup 1 has / Supervisor 1 has
- Notification 0..* receives / 0..1 is sent to Supervisor