Presentation layer

«Static»
Program
Package::Presentation
- static final scanner: Scanner
- firstTime: boolean
+ Program()
+ Menu(): void
- Login(): void
- static logo(): void
- admin_checker(UserPassInput: String[]): boolean
- user_checker(UserPassInput: String[]): boolean
- UserPassInput() : String[]

«Static»
Printer
Package::Presentation
+ static PrintAllEmployees(List<JsonObject>): void
- static JsonToEmployee(JsonObject): String
+ static convertMatrix(String[][] matrix) : String[][] matrix
+ static PrintPreferences(String[][] matrix) : void
- static padRight(String s, int n) : String

«Static»
AdminMenu
Package::Presentation
- static scanner: Scanner //static final
- static employeeInShift: int //static
+ static FirstMenu(): void
+ static Menu(): void
- static Config(): int
- static ProgressBar(): void
- static ShiftInteraction(): void
- static AddShiftMenu(): void
- static DeleteShiftMenu(): void
- static IOJobShiftMenu(): Integer
- static IOShiftMenu(): List<Integer>

«Static»
Menu
Package::Presentation
+ static AddEmployee(): void
+ static RemoveEmployee(): void
+ static UpdateEmployeeDetails(): void
- static GetJobType(): String

«Class»
ProgressBar
Package::Presentation
- total: int
- current: int
- barLength: int
+ ProgressBar(int total, int barLength)
+ update(int progress): void
+ finish(): void

«Static»
Sender
Package::Presentation
+ EmployeeToJson(String id, String name, String bankID, int salary, int restDays, LocalDate startDate, String workType) : JsonObject

«Static»
UserMenu
Package::Presentation
- static scanner : Scanner //static final
+ static Menu() : void
+ static updatePreferences() : void

Service layer

«Static»
AdminController
Package::Controller
+static PrintEmployees() : List<JsonObject>
+static ImportEmployees() : void
+static AddEmployee(JsonObject json) : void
+static createPreferencesNewEmp(JsonObject json) : String
+static RemoveEmployee(String id) : String
+static SearchEmployee(String id) : boolean
+static GetEmployee(String id) : JsonObject
+static printAllTypeWeek() : String
+static printTypeWeek(int job) : String
+static checkEmployeeWeekFull(int amount) : void
+static SetShift(int job, int day, int shift, int id) : void
+static removeShift(int id, int day, int shift, int job) : String
+static getEmployeeToShift(int job, int day, int shift) : List<JsonObject>

«Static»
SystemController
Package::Controller
+LoginInputValidatorAdmin(String[] input) : boolean
+LoginInputValidatorUser(String[] input) : boolean
+static Logout() : void
+static SetEmployeeIDIOData() : void
+static getEnumArray() : String[]

«Static»
EmployeeController
Package::Controller
+ static ViewPersonalData() : JsonObject
+ static GetPreferences() : String[][]

Domain layer

JobWeeklyShift
Package::Domain
-JobName : final JobTypeEnum
-WeeklyShifts : ArrayList<Employee>[][]
#PotentialEmployee : ArrayList<Employee>
+JobWeeklyShift(JobTypeEnum jobName)
#getWorkingShiftString(int day, int shift) : StringBuilder
+checkFull(int amount) : void
#getEmployeeArray(int day, int shift) : List<JsonObject>
+toJsonWeek() : JsonObject
-getMaxLen() : int
+setWeeklyShifts(int day, int shift, int id) : void
#remove(int day, int shift, int id) : boolean
+GetJobType() : String

Contains weekly schedule
for each role in the shop
0..n
JobTypeEnum

Employee
Package::Domain
-id: String
-name: String
-jobType : ArrayList<JobTypeEnum>
-BankID: String
-contract
-WeekPreferences : String[][]
+getId() : String
+getName() : String
+getJobType() : ArrayList<JobTypeEnum>
+setId(id: String) : void
+setName(name: String) : void
+addJobType(JobTypeEnum jobType) : void
+setBankID() : void
+getContract() : Contract
+Employee(id: String, name: String, bankID: String, salary: int, restDays: int, startDate: LocalDate, jobTypes: ArrayList<JobTypeEnum>)
+toString() : String
+setSalary(salary: int) : void
+setRestDays(restDays: int) : void
+toJson() : JsonObject
+static JsonToEmployee(JsonObject j) : Employee

has a

Contract
Package::Domain
-startDate : LocalDate
-salary : int
-restDays: int
+Contract(LocalDate startDate, int salary, int restDays)
+getStartDate() : LocalDate
+setStartDate(LocalDate. Date) : void
+getSalary() : int
+setGlobalSalary(int salary) : void
+getRestDays() : int
+setRestDays(int restDays) : void

SHA_256_Hasher
Package::Domain
+SHA_256_Hasher()
+Checker(String[] j, String path) : boolean
-hashPassword(String password) : String

«Static»
WeeklyShift
Package::Domain
DAYS : final String[]
SHIFTS : final String[]
+static startWeek() : void
+static checkEmployeeForEachJobType(int amount) : void
+static GetShiftByJob() : Map<JobTypeEnum, JobWeeklyShift>
+static CheckEmployeeForEachJobType(int i) : void
+static iterAllJobWeeklyShift() : String
+static getJobWeeklyShift(int job) : String
#static removeEmployee(int job, int day, int shift, int id) : boolean
#static setEmployeeHowCanWork(int job, int day, int shift, int id) : void
#static getEmployeeForShift(int job, int day, int shift) : List<JsonObject>
#static getWeeklyShift(int job) : JobWeeklyShift
-static getEmployeesString(ArrayList<Employee> employees) : String
+static exportShiftsToCSV(MAP<JobTypeEnum, JobWeeklyShift< shiftByJob) : void

Limitation to the
number of working days

currEmployees
- contain all the Employess in the system
0..n
ID

«static»
IO_Data
Package::Domain (?)
+flag : static boolean
+amount_days : static int
+amount_shifts : static int
+employeeID : static String
+branch : static String
+static getEmployeeHowCanWork(int job, int day, int shift) : List<JsonObject>
+static removeFromShiftIO(int id, int day, int shift, int job) : String
+static setEmployeeHowCanWork(int job, int day, int shift, int id) : void
+static startWeek() : void
+static ImportEmployees() : void
+static ImportEmployeePreferences(String id) : String[][]
+static PrintEmployees() : List<JsonObject>
+static RemoveEmployee(String id) : boolean
-static RemoveEmployeeFromCSV(String id) : void
+static SearchEmployee(String id) : int
+static Authentication(String username, String password, String id, String path) : boolean
+static GetEmployee(String id) : JsonObject
+static SetEmployeeID(String id) : void
-static ConvertEmployeeToJson(Employee employee) : JsonObject
+static addEmployeeToCSV(JsonObject employeeJson) : void
+static addEmployeeToList(JsonObject e) : void
+static StringToDate(String dateStr) : LocalDate
-static employeeJsonToCSVString(JsonObject employeeJson) : String
+static GetPreferncesFromCSV : String[][]
+static UpdatePrefencesToCSV(String[][] preferences) : void
+static SetBranchName(String s) : void
+static ListFoldersInDirectory() : List<String>

«Enum»
JobTypeEnum
Package::Domain
ShiftManager
Cashier
StockKeeper

«Enum»
ShiftType
Package::Domain
Morning
Night

«Enum»
dayTypeEnum
Package::Domain
SUNDAY
MONDAY
TUESDAY
WEDNESDAY
THURSDAY

«Static»
Constants
Package::Domain
+DEV : static final String
+PATH_EMPLOYEE : static final String
+PATH_DATA_VALIDATION_ADMIN : static final String
+PATH_DATA_VALIDATION_USER : static final String
+PATH_DATA_PREFERNCES : static final String