분산프로그래밍 2 발표

큘비팀
김규리 이은비

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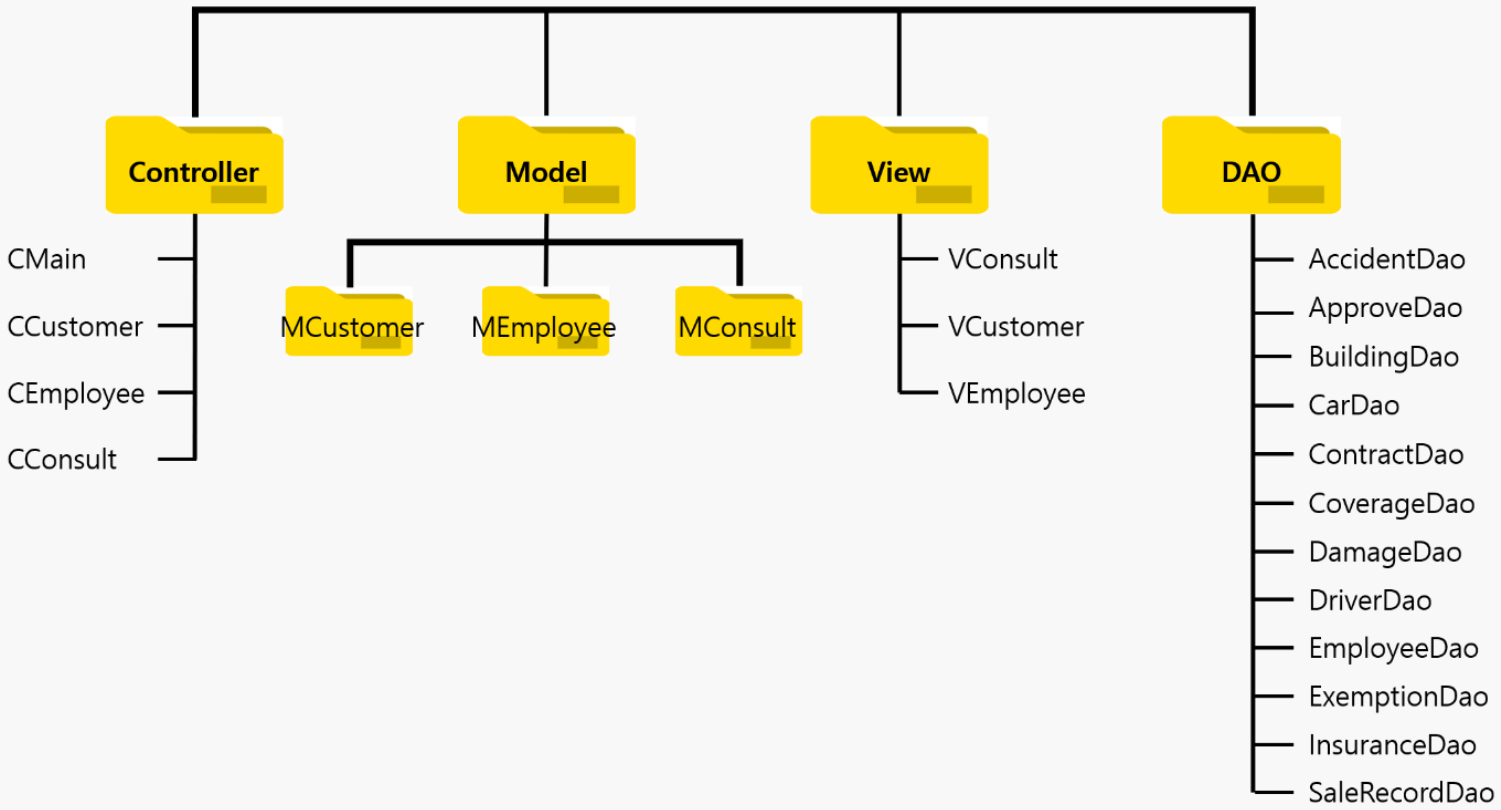
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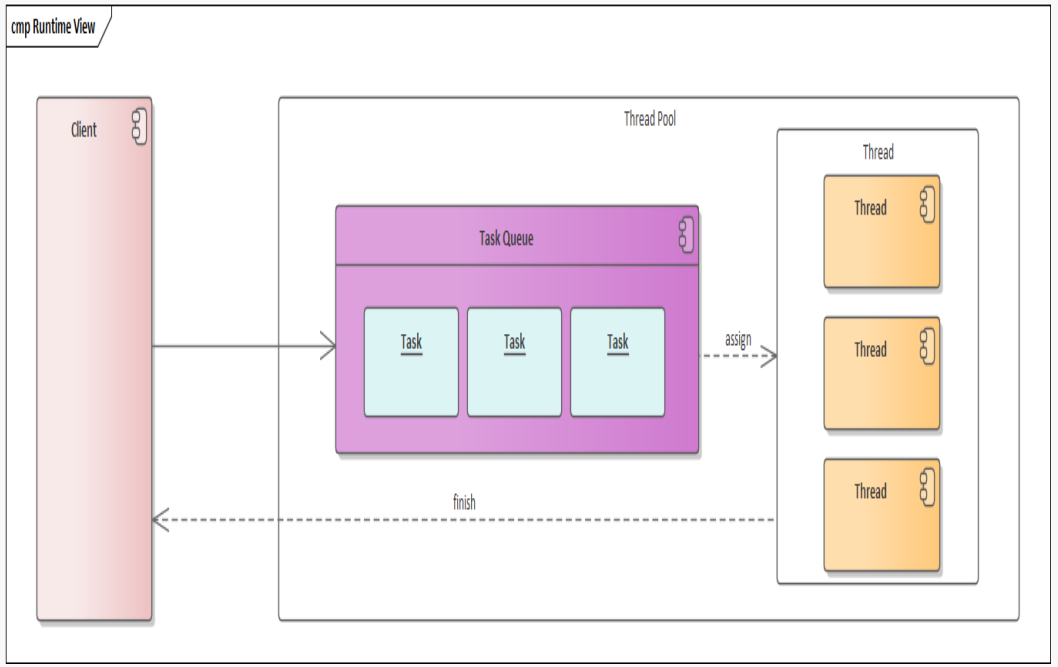
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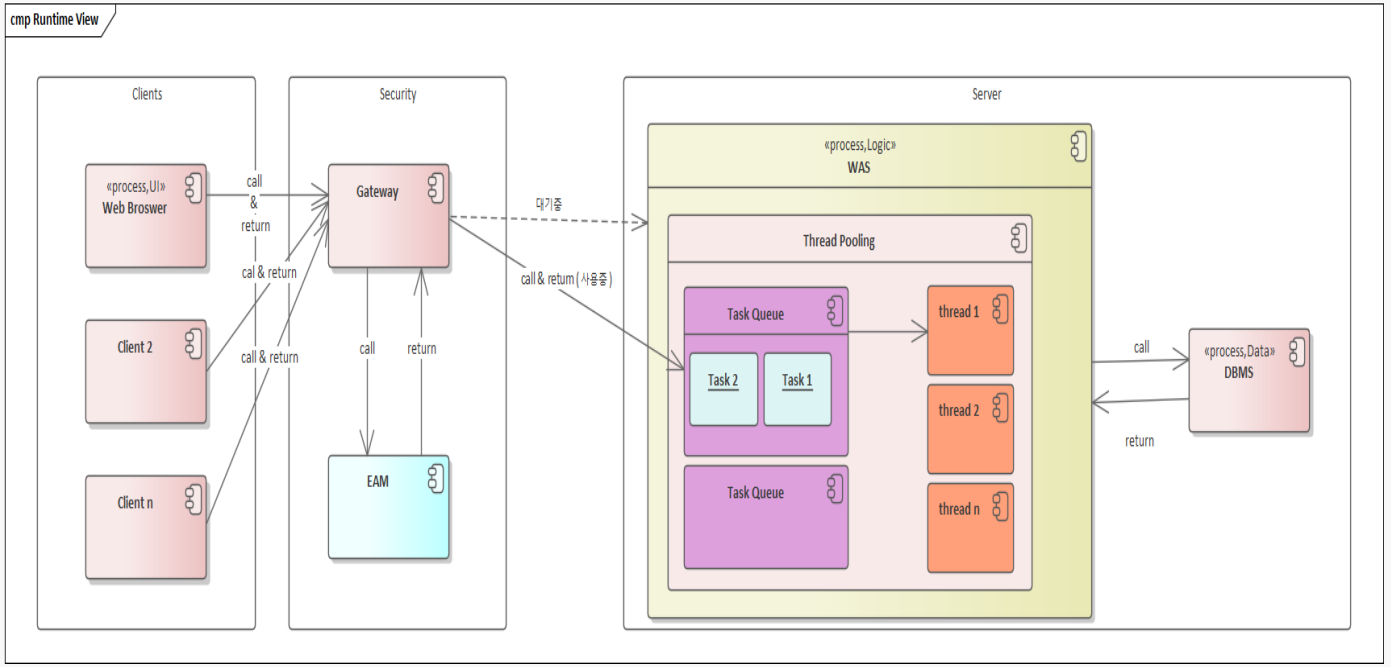
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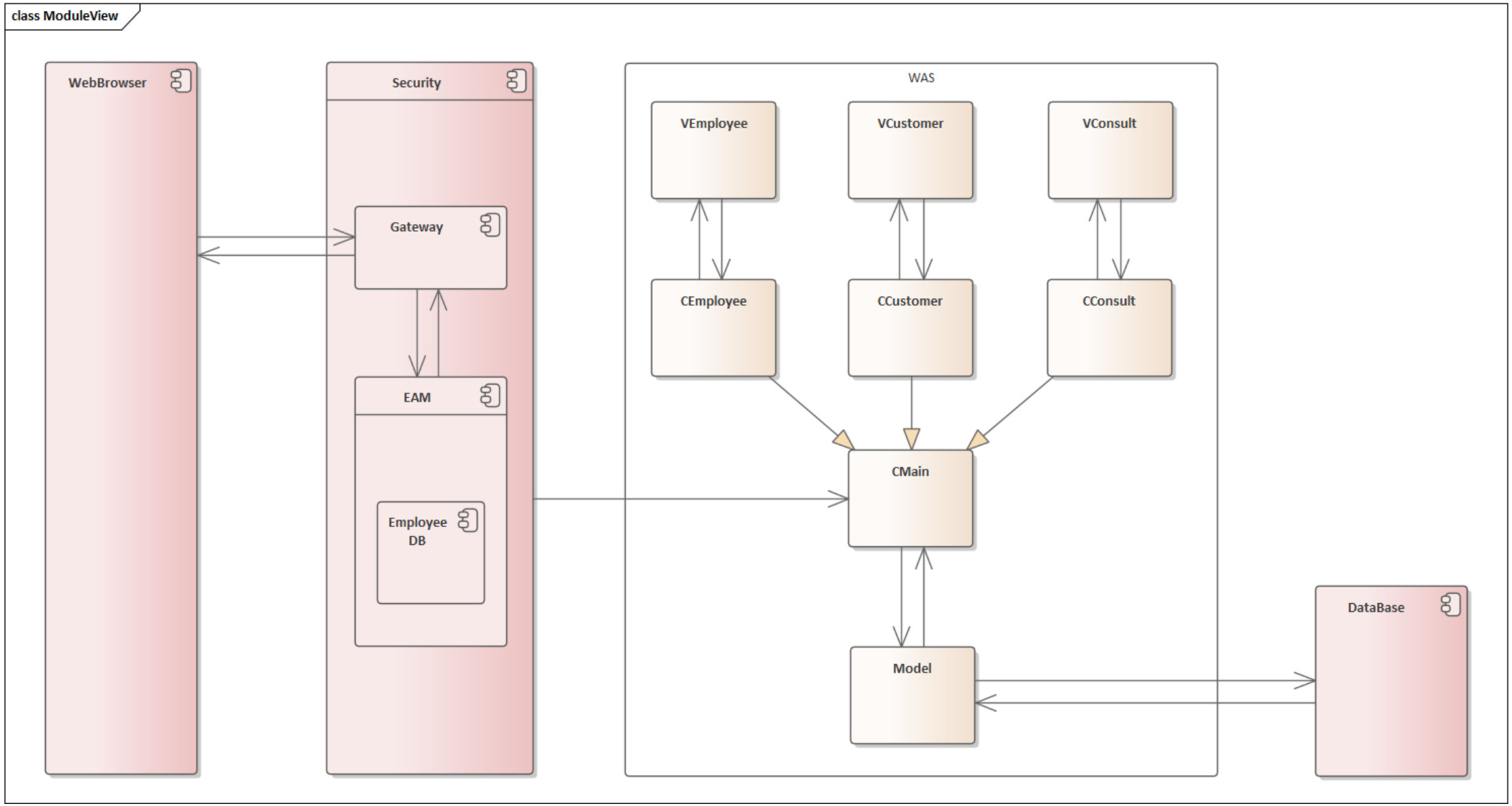
class ModuleView
WebBrowser
Security
Gateway
EAM
Employee
DB
WAS
VEmployee
VCustomer
VConsult
CEmployee
CCustomer
CConsult
CMain
Model
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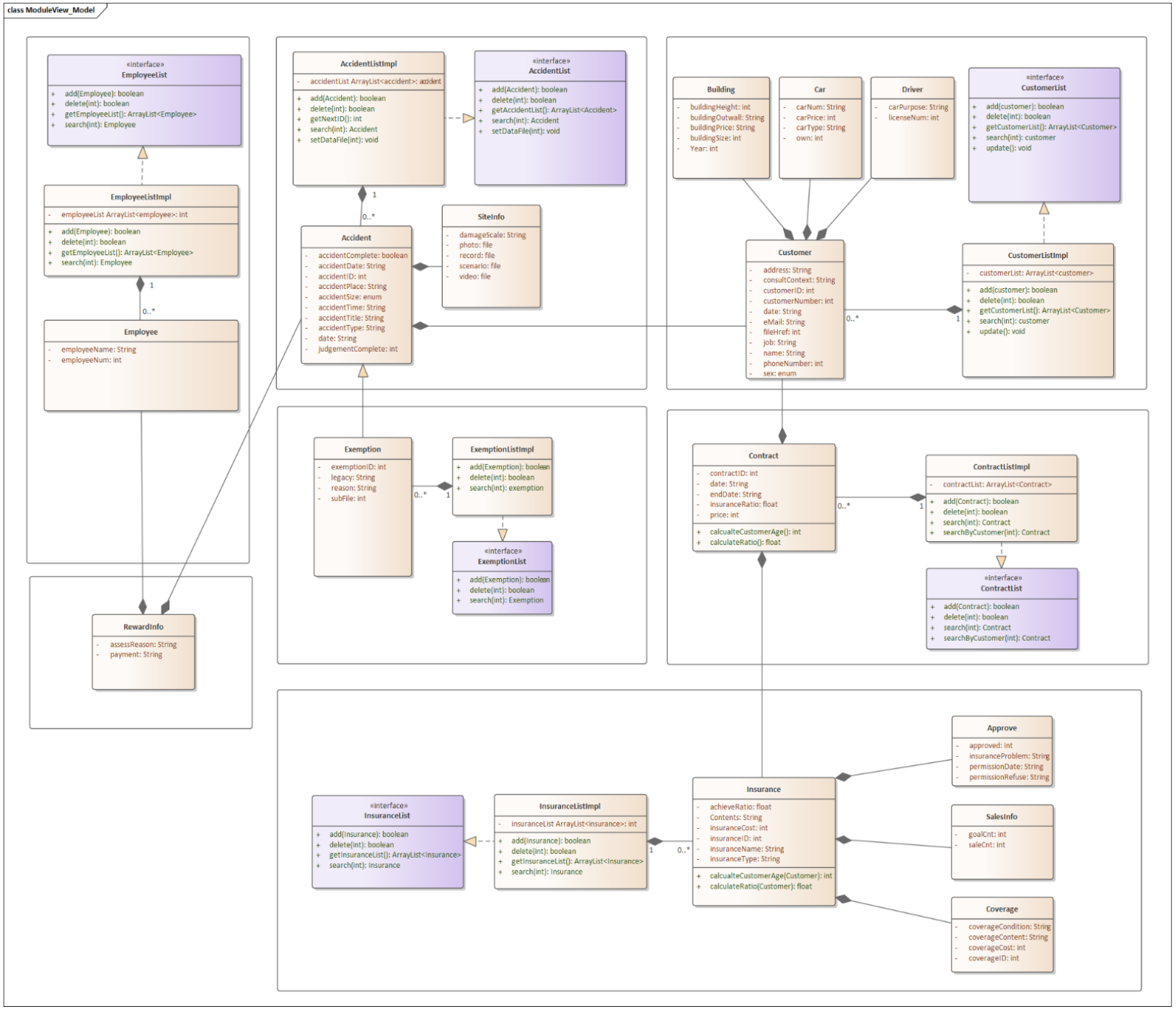
class ModuleView_Model
«interface»
EmployeeList
+ add(Employee): boolean
+ delete(int): boolean
+ getEmployeeList(): ArrayList<Employee>
+ search(int): Employee
EmployeeListImpl
- employeeList ArrayList<employee>: int
+ add(Employee): boolean
+ delete(int): boolean
+ getEmployeeList(): ArrayList<Employee>
+ search(int): Employee
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Employee
- employeeName: String
- employeeNum: int
RewardInfo
- assessReason: String
- payment: String
AccidentListImpl
- accidentList ArrayList<accident>: accident
+ add(Accident): boolean
+ delete(int): boolean
+ getNextID(): int
+ search(int): Accident
+ setDataFile(int): void
«interface»
AccidentList
+ add(Accident): boolean
+ delete(int): boolean
+ getAccidentList(): ArrayList<Accident>
+ search(int): Accident
+ setDataFile(int): void
1
0..*
Accident
- accidentComplete: boolean
- accidentDate: String
- accidentID: int
- accidentPlace: String
- accidentSize: enum
- accidentTime: String
- accidentTitle: String
- accidentType: String
- date: String
- judgementComplete: int
SiteInfo
- damageScale: String
- photo: file
- record: file
- scenario: file
- video: file
Building
- buildingHeight: int
- buildingOutwall: String
- buildingPrice: String
- buildingSize: int
- Year: int
Car
- carNum: String
- carPrice: int
- carType: String
- own: int
Driver
- carPurpose: String
- licenseNum: int
«interface»
CustomerList
+ add(customer): boolean
+ delete(int): boolean
+ getCustomerList(): ArrayList<Customer>
+ search(int): customer
+ update(): void
Customer
- address: String
- consultContext: String
- customerID: int
- customerNumber: int
- date: String
- eMail: String
- fileHref: int
- job: String
- name: String
- phoneNumber: int
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CustomerListImpl
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+ add(customer): boolean
+ delete(int): boolean
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+ search(int): customer
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- contractList: ArrayList<Contract>
+ add(Contract): boolean
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+ search(int): Contract
+ searchByCustomer(int): Contract
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+ add(Contract): boolean
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+ searchByCustomer(int): Contract
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+ add(Insurance): boolean
+ delete(int): boolean
+ getInsuranceList(): ArrayList<Insurance>
+ search(int): Insurance
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- insuranceList ArrayList<insurance>: int
+ add(Insurance): boolean
+ delete(int): boolean
+ getInsuranceList(): ArrayList<Insurance>
+ search(int): Insurance
1
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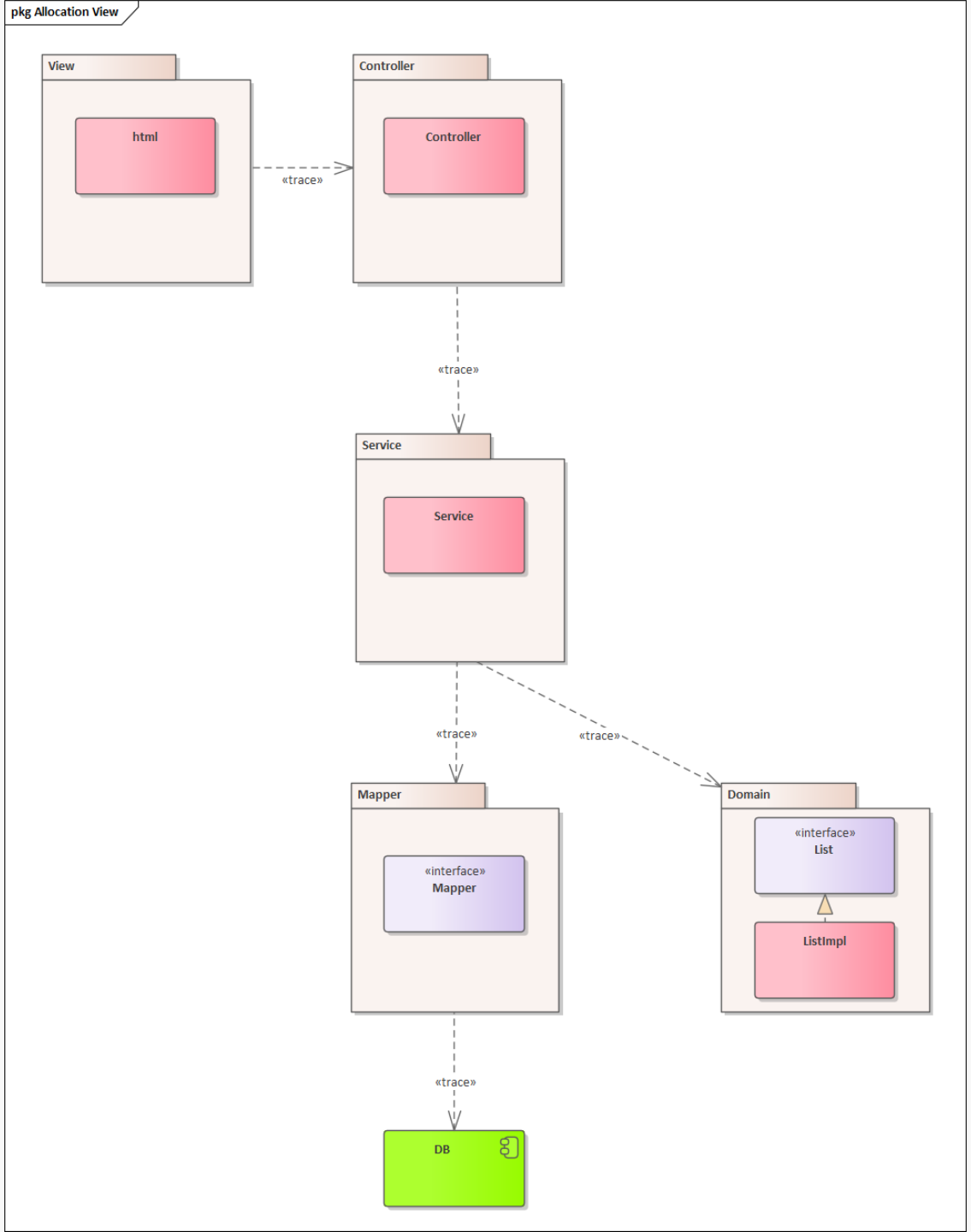
Insurance
- achieveRatio: float
- Contents: String
- insuranceCost: int
- insuranceID: int
- insuranceName: String
- insuranceType: String
+ calcualteCustomerAge(Customer): int
+ calculateRatio(Customer): float
Approve
- approved: int
- insuranceProblem: String
- permissionDate: String
- permissionRefuse: String
SalesInfo
- goalCnt: int
- saleCnt: int
Coverage
- coverageCondition: String
- coverageContent: String
- coverageCost: int
- coverageID: int

아키텍처_구현


pkg Allocation View
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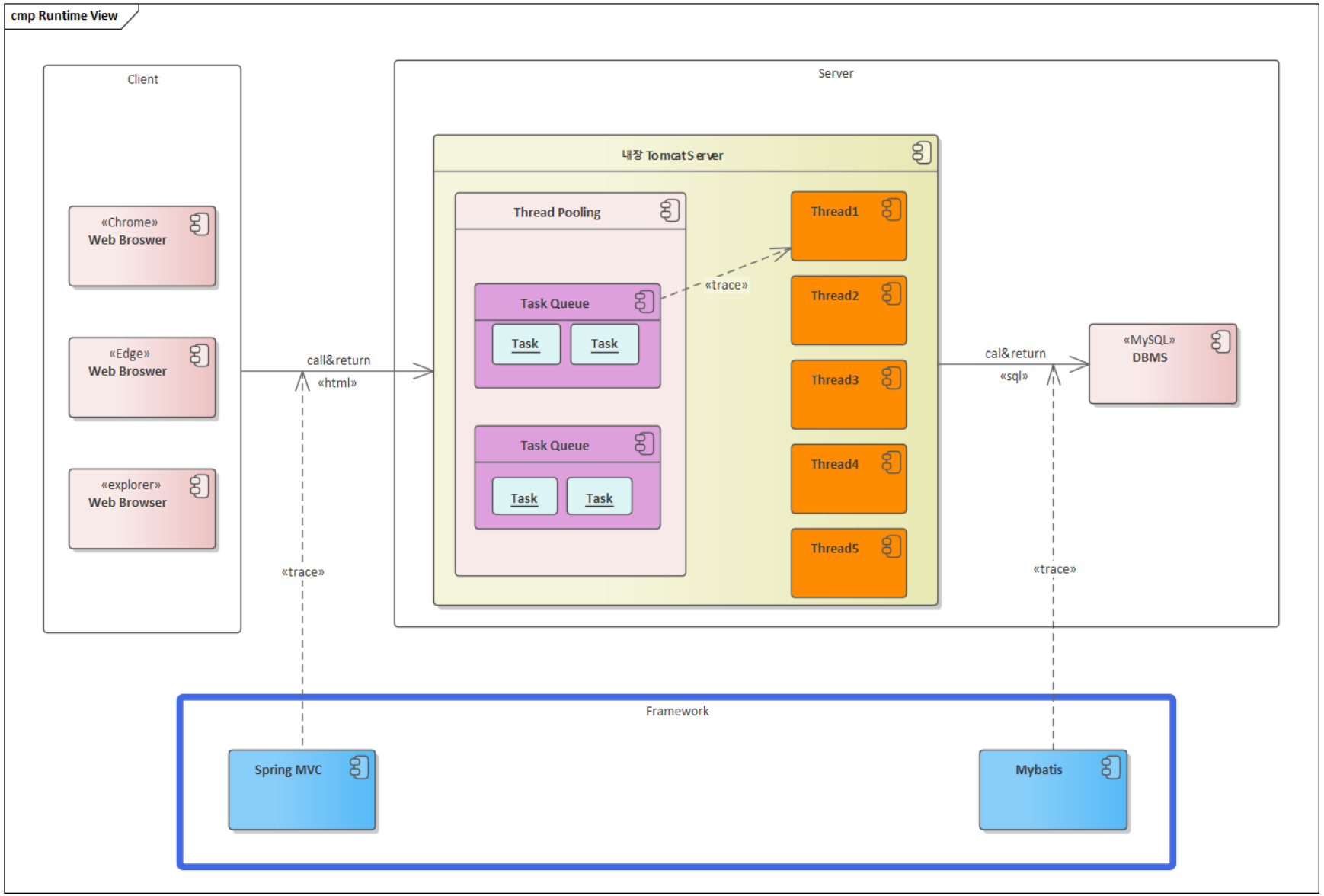
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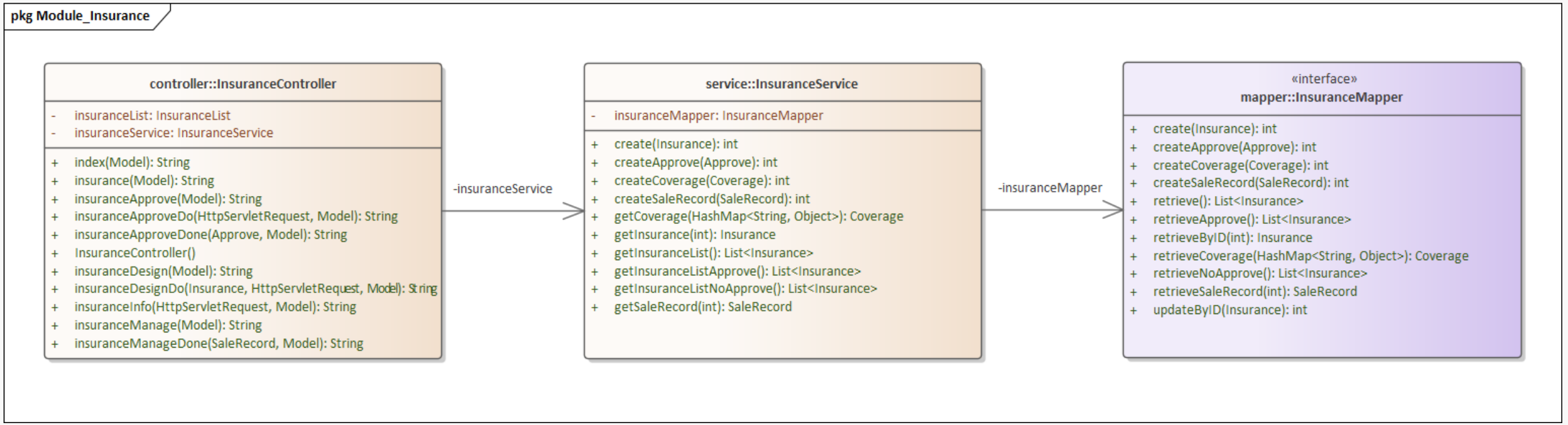
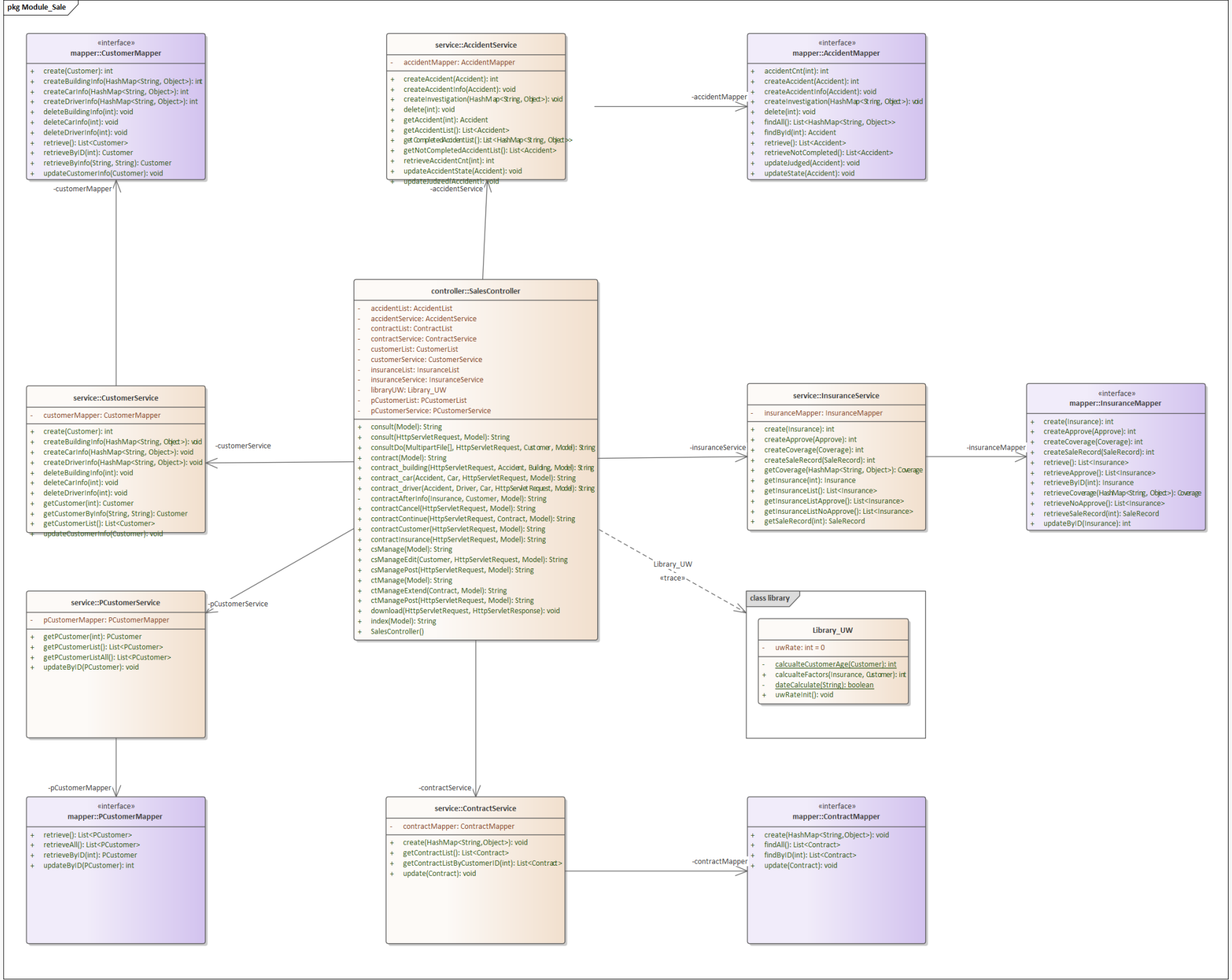

pkg Module_Insurance
controller::InsuranceController
- insuranceList: InsuranceList
- insuranceService: InsuranceService
+ index(Model): String
+ insurance(Model): String
+ insuranceApprove(Model): String
+ insuranceApproveDo(HttpServletRequest, Model): String
+ insuranceApproveDone(Approve, Model): String
+ InsuranceController()
+ insuranceDesign(Model): String
+ insuranceDesignDo(Insurance, HttpServletRequest, Model): String
+ insuranceInfo(HttpServletRequest, Model): String
+ insuranceManage(Model): String
+ insuranceManageDone(SaleRecord, Model): String
-insuranceService
service::InsuranceService
- insuranceMapper: InsuranceMapper
+ create(Insurance): int
+ createApprove(Approve): int
+ createCoverage(Coverage): int
+ createSaleRecord(SaleRecord): int
+ getCoverage(HashMap<String, Object>): Coverage
+ getInsurance(int): Insurance
+ getInsuranceList(): List<Insurance>
+ getInsuranceListApprove(): List<Insurance>
+ getInsuranceListNoApprove(): List<Insurance>
+ getSaleRecord(int): SaleRecord
-insuranceMapper
«interface»
mapper::InsuranceMapper
+ create(Insurance): int
+ createApprove(Approve): int
+ createCoverage(Coverage): int
+ createSaleRecord(SaleRecord): int
+ retrieve(): List<Insurance>
+ retrieveApprove(): List<Insurance>
+ retrieveByID(int): Insurance
+ retrieveCoverage(HashMap<String, Object>): Coverage
+ retrieveNoApprove(): List<Insurance>
+ retrieveSaleRecord(int): SaleRecord
+ updateByID(Insurance): int


pkg Module_Sale
«interface»
mapper::CustomerMapper
+ create(Customer): int
+ createBuildingInfo(HashMap<String, Object>): int
+ createCarInfo(HashMap<String, Object>): int
+ createDriverInfo(HashMap<String, Object>): int
+ deleteBuildingInfo(int): void
+ deleteCarInfo(int): void
+ deleteDriverInfo(int): void
+ retrieve(): List<Customer>
+ retrieveByID(int): Customer
+ retrieveByInfo(String, String): Customer
+ updateCustomerInfo(Customer): void
-customerMapper
service::AccidentService
- accidentMapper: AccidentMapper
+ createAccident(Accident): int
+ createAccidentInfo(Accident): void
+ createInvestigation(HashMap<String, Object>): void
+ delete(int): void
+ getAccident(int): Accident
+ getAccidentList(): List<Accident>
+ getCompletedAccidentList(): List<HashMap<String, Object>>
+ getNotCompletedAccidentList(): List<Accident>
+ retrieveAccidentCnt(int): int
+ updateAccidentState(Accident): void
+ updateJudged(Accident): void
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-accidentMapper
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mapper::AccidentMapper
+ accidentCnt(int): int
+ createAccident(Accident): int
+ createAccidentInfo(Accident): void
+ createInvestigation(HashMap<String, Object>): void
+ delete(int): void
+ findAll(): List<HashMap<String, Object>>
+ findById(int): Accident
+ retrieve(): List<Accident>
+ retrieveNotCompleted(): List<Accident>
+ updateJudged(Accident): void
+ updateState(Accident): void
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- accidentList: AccidentList
- accidentService: AccidentService
- contractList: ContractList
- contractService: ContractService
- customerList: CustomerList
- customerService: CustomerService
- insuranceList: InsuranceList
- insuranceService: InsuranceService
- libraryUW: Library_UW
- pCustomerList: PCustomerList
- pCustomerService: PCustomerService
+ consult(Model): String
+ consult(HttpServletRequest, Model): String
+ consultDo(MultipartFile[], HttpServletRequest, Customer, Model): String
+ contract(Model): String
+ contract_building(HttpServletRequest, Accident, Building, Model): String
+ contract_car(Accident, Car, HttpServletRequest, Model): String
+ contract_driver(Accident, Driver, Car, HttpServletRequest, Model): String
- contractAfterInfo(Insurance, Customer, Model): String
+ contractCancel(HttpServletRequest, Model): String
+ contractContinue(HttpServletRequest, Contract, Model): String
+ contractCustomer(HttpServletRequest, Model): String
+ contractInsurance(HttpServletRequest, Model): String
+ csManage(Model): String
+ csManageEdit(Customer, HttpServletRequest, Model): String
+ csManagePost(HttpServletRequest, Model): String
+ ctManage(Model): String
+ ctManageExtend(Contract, Model): String
+ ctManagePost(HttpServletRequest, Model): String
+ download(HttpServletRequest, HttpServletResponse): void
+ index(Model): String
+ SalesController()
service::CustomerService
- customerMapper: CustomerMapper
+ create(Customer): int
+ createBuildingInfo(HashMap<String, Object>): void
+ createCarInfo(HashMap<String, Object>): void
+ createDriverInfo(HashMap<String, Object>): void
+ deleteBuildingInfo(int): void
+ deleteCarInfo(int): void
+ deleteDriverInfo(int): void
+ getCustomer(int): Customer
+ getCustomerByInfo(String, String): Customer
+ getCustomerList(): List<Customer>
+ updateCustomerInfo(Customer): void
-customerService
service::InsuranceService
- insuranceMapper: InsuranceMapper
+ create(Insurance): int
+ createApprove(Approve): int
+ createCoverage(Coverage): int
+ createSaleRecord(SaleRecord): int
+ getCoverage(HashMap<String, Object>): Coverage
+ getInsurance(int): Insurance
+ getInsuranceList(): List<Insurance>
+ getInsuranceListApprove(): List<Insurance>
+ getInsuranceListNoApprove(): List<Insurance>
+ getSaleRecord(int): SaleRecord
-insuranceService
-insuranceMapper
«interface»
mapper::InsuranceMapper
+ create(Insurance): int
+ createApprove(Approve): int
+ createCoverage(Coverage): int
+ createSaleRecord(SaleRecord): int
+ retrieve(): List<Insurance>
+ retrieveApprove(): List<Insurance>
+ retrieveByID(int): Insurance
+ retrieveCoverage(HashMap<String, Object>): Coverage
+ retrieveNoApprove(): List<Insurance>
+ retrieveSaleRecord(int): SaleRecord
+ updateByID(Insurance): int
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«trace»
class library
Library_UW
- uwRate: int = 0
- calcualteCustomerAge(Customer): int
+ calcualteFactors(Insurance, Customer): int
- dateCalculate(String): boolean
+ uwRateInit(): void
service::PCustomerService
- pCustomerMapper: PCustomerMapper
+ getPCustomer(int): PCustomer
+ getPCustomerList(): List<PCustomer>
+ getPCustomerListAll(): List<PCustomer>
+ updateByID(PCustomer): void
-pCustomerService
-pCustomerMapper
«interface»
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+ retrieve(): List<PCustomer>
+ retrieveAll(): List<PCustomer>
+ retrieveByID(int): PCustomer
+ updateByID(PCustomer): int
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- contractMapper: ContractMapper
+ create(HashMap<String,Object>): void
+ getContractList(): List<Contract>
+ getContractListByCustomerID(int): List<Contract>
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mapper::ContractMapper
+ create(HashMap<String,Object>): void
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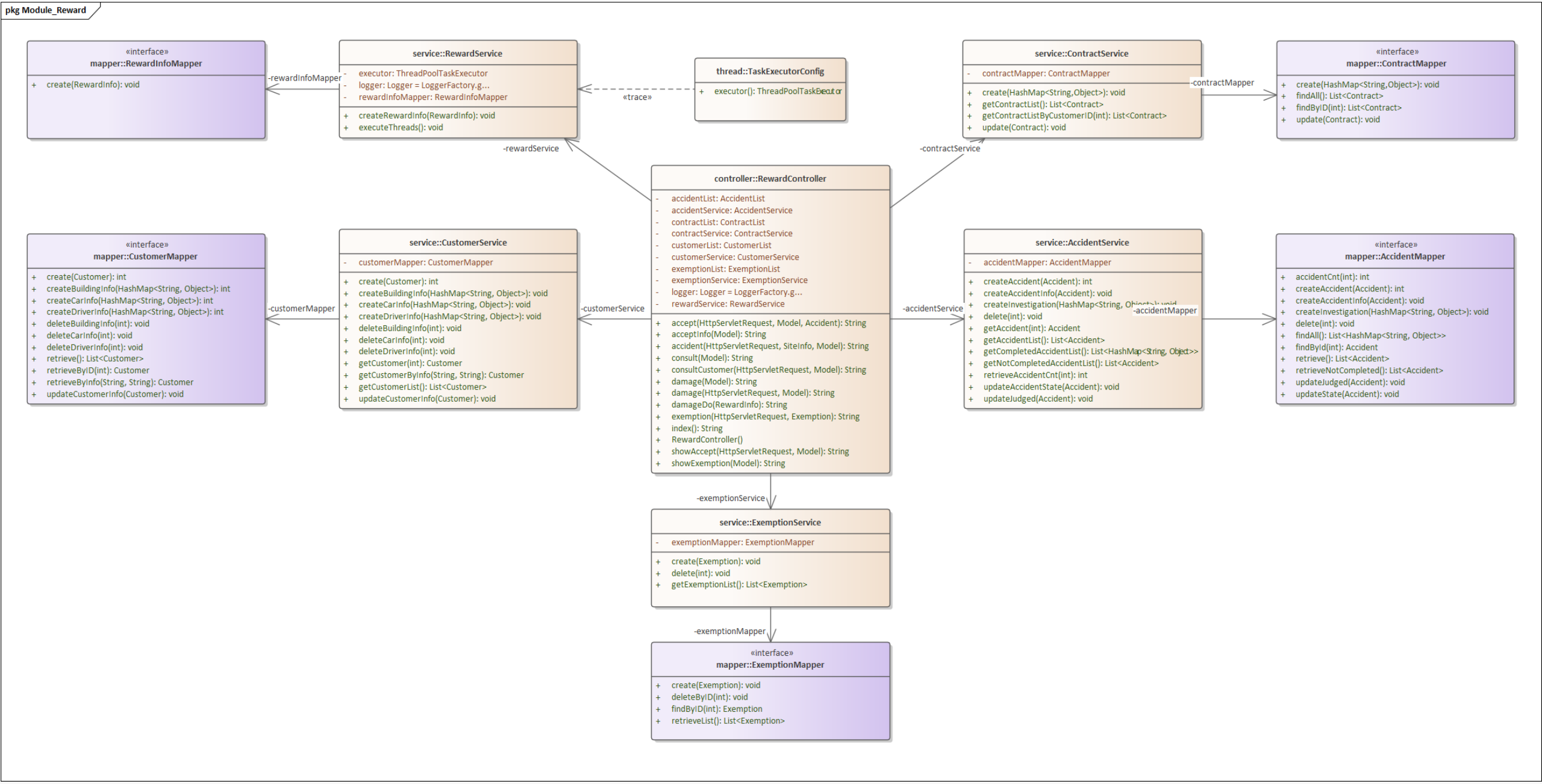
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mapper::RewardInfoMapper
+ create(RewardInfo): void
-rewardInfoMapper
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- logger: Logger = LoggerFactory.g...
- rewardInfoMapper: RewardInfoMapper
+ createRewardInfo(RewardInfo): void
+ executeThreads(): void
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+ executor(): ThreadPoolTaskExecutor
service::ContractService
- contractMapper: ContractMapper
+ create(HashMap<String,Object>): void
+ getContractList(): List<Contract>
+ getContractListByCustomerID(int): List<Contract>
+ update(Contract): void
-contractMapper
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+ create(HashMap<String,Object>): void
+ findAll(): List<Contract>
+ findByID(int): List<Contract>
+ update(Contract): void
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-contractService
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- accidentList: AccidentList
- accidentService: AccidentService
- contractList: ContractList
- contractService: ContractService
- customerList: CustomerList
- customerService: CustomerService
- exemptionList: ExemptionList
- exemptionService: ExemptionService
- logger: Logger = LoggerFactory.g...
- rewardService: RewardService
+ accept(HttpServletRequest, Model, Accident): String
+ acceptInfo(Model): String
+ accident(HttpServletRequest, SiteInfo, Model): String
+ consult(Model): String
+ consultCustomer(HttpServletRequest, Model): String
+ damage(Model): String
+ damage(HttpServletRequest, Model): String
+ damageDo(RewardInfo): String
+ exemption(HttpServletRequest, Exemption): String
+ index(): String
+ RewardController()
+ showAccept(HttpServletRequest, Model): String
+ showExemption(Model): String
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mapper::CustomerMapper
+ create(Customer): int
+ createBuildingInfo(HashMap<String, Object>): int
+ createCarInfo(HashMap<String, Object>): int
+ createDriverInfo(HashMap<String, Object>): int
+ deleteBuildingInfo(int): void
+ deleteCarInfo(int): void
+ deleteDriverInfo(int): void
+ retrieve(): List<Customer>
+ retrieveByID(int): Customer
+ retrieveByInfo(String, String): Customer
+ updateCustomerInfo(Customer): void
-customerMapper
service::CustomerService
- customerMapper: CustomerMapper
+ create(Customer): int
+ createBuildingInfo(HashMap<String, Object>): void
+ createCarInfo(HashMap<String, Object>): void
+ createDriverInfo(HashMap<String, Object>): void
+ deleteBuildingInfo(int): void
+ deleteCarInfo(int): void
+ deleteDriverInfo(int): void
+ getCustomer(int): Customer
+ getCustomerByInfo(String, String): Customer
+ getCustomerList(): List<Customer>
+ updateCustomerInfo(Customer): void
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+ createAccident(Accident): int
+ createAccidentInfo(Accident): void
+ createInvestigation(HashMap<String, Object>): void
+ delete(int): void
+ getAccident(int): Accident
+ getAccidentList(): List<Accident>
+ getCompletedAccidentList(): List<HashMap<String, Object>>
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mapper::AccidentMapper
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+ createAccident(Accident): int
+ createAccidentInfo(Accident): void
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+ delete(int): void
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+ retrieveNotCompleted(): List<Accident>
+ updateJudged(Accident): void
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- exemptionMapper: ExemptionMapper
+ create(Exemption): void
+ delete(int): void
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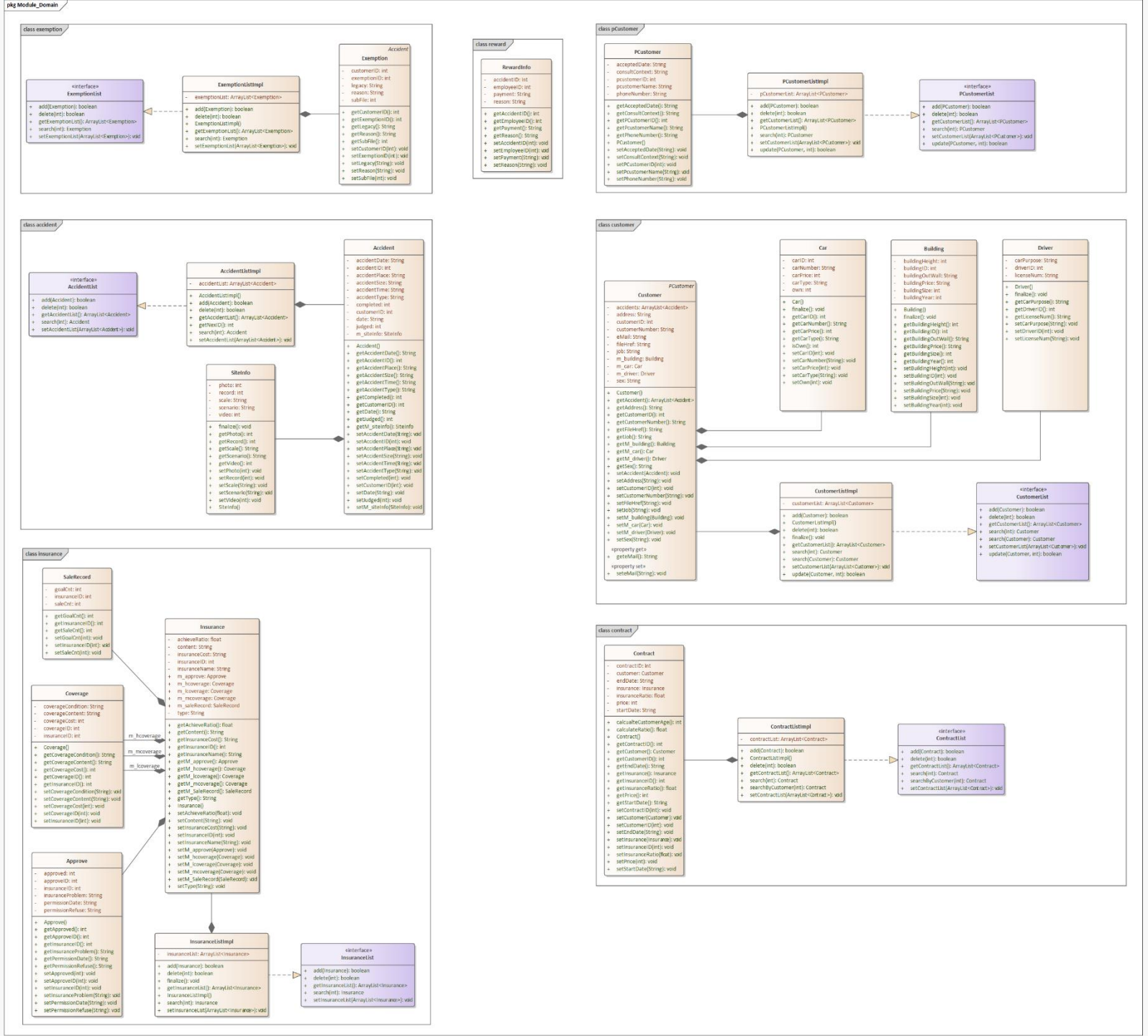
-exemptionMapper
«interface»
mapper::ExemptionMapper
+ create(Exemption): void
+ deleteByID(int): void
+ findByID(int): Exemption
+ retrieveList(): List<Exemption>


pkg Module_Domain
class exemption
«interface»
ExemptionList
+ add(Exemption): boolean
+ delete(int): boolean
+ getExemptionList(): ArrayList<Exemption>
+ search(int): Exemption
+ setExemptionList(ArrayList<Exemption>): void
ExemptionListImpl
- exemptionList: ArrayList<Exemption>
+ add(Exemption): boolean
+ delete(int): boolean
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+ getExemptionList(): ArrayList<Exemption>
+ search(int): Exemption
+ setExemptionList(ArrayList<Exemption>): void
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Exemption
- customerID: int
- exemptionID: int
- legacy: String
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- subFile: int
+ getCustomerID(): int
+ getExemptionID(): int
+ getLegacy(): String
+ getReason(): String
+ getSubFile(): int
+ setCustomerID(int): void
+ setExemptionID(int): void
+ setLegacy(String): void
+ setReason(String): void
+ setSubFile(int): void
class reward
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- accidentID: int
- employeeID: int
- payment: String
- reason: String
+ getAccidentID(): int
+ getEmployeeID(): int
+ getPayment(): String
+ getReason(): String
+ setAccidentID(int): void
+ setEmployeeID(int): void
+ setPayment(String): void
+ setReason(String): void
class pCustomer
PCustomer
- acceptedDate: String
- consultContext: String
- pcustomerID: int
- pcustomerName: String
- phoneNumber: String
+ getAcceptedDate(): String
+ getConsultContext(): String
+ getPCustomerID(): int
+ getPcustomerName(): String
+ getPhoneNumber(): String
+ PCustomer()
+ setAcceptedDate(String): void
+ setConsultContext(String): void
+ setPCustomerID(int): void
+ setPcustomerName(String): void
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- pCustomerList: ArrayList<PCustomer>
+ add(PCustomer): boolean
+ delete(int): boolean
+ getCustomerList(): ArrayList<PCustomer>
+ PCustomerListImpl()
+ search(int): PCustomer
+ setCustomerList(ArrayList<PCustomer>): void
+ update(PCustomer, int): boolean
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+ add(PCustomer): boolean
+ delete(int): boolean
+ getCustomerList(): ArrayList<PCustomer>
+ search(int): PCustomer
+ setCustomerList(ArrayList<PCustomer>): void
+ update(PCustomer, int): boolean
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+ add(Accident): boolean
+ delete(int): boolean
+ getAccidentList(): ArrayList<Accident>
+ search(int): Accident
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- accidentList: ArrayList<Accident>
+ AccidentListImpl()
+ add(Accident): boolean
+ delete(int): boolean
+ getAccidentList(): ArrayList<Accident>
+ getNext(): int
+ search(int): Accident
+ setAccidentList(ArrayList<Accident>): void
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- photo: int
- record: int
- scale: String
- scenario: String
- video: int
+ finalize(): void
+ getPhoto(): int
+ getRecord(): int
+ getScale(): String
+ getScenario(): String
+ getVideo(): int
+ setPhoto(int): void
+ setRecord(int): void
+ setScale(String): void
+ setScenario(String): void
+ setVideo(int): void
+ SiteInfo()
Accident
- accidentDate: String
- accidentID: int
- accidentPlace: String
- accidentSize: String
- accidentTime: String
- accidentType: String
- completed: int
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+ Accident()
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+ setCustomerID(int): void
+ setDate(String): void
+ setJudged(int): void
+ setM_siteInfo(SiteInfo): void
class customer
PCustomer
Customer
- accidents: ArrayList<Accident>
- address: String
- customerID: int
- customerNumber: String
- eMail: String
- fileHref: String
- job: String
- m_building: Building
- m_car: Car
- m_driver: Driver
- sex: String
+ Customer()
+ getAccident(): ArrayList<Accident>
+ getAddress(): String
+ getCustomerID(): int
+ getCustomerNumber(): String
+ getFileHref(): String
+ getJob(): String
+ getM_building(): Building
+ getM_car(): Car
+ getM_driver(): Driver
+ getSex(): String
+ setAccident(Accident): void
+ setAddress(String): void
+ setCustomerID(int): void
+ setCustomerNumber(String): void
+ setFileHref(String): void
+ setJob(String): void
+ setM_building(Building): void
+ setM_car(Car): void
+ setM_driver(Driver): void
+ setSex(String): void
«property get»
+ geteMail(): String
«property set»
+ seteMail(String): void
Car
- carID: int
- carNumber: String
- carPrice: int
- carType: String
- own: int
+ Car()
+ finalize(): void
+ getCarID(): int
+ getCarNumber(): String
+ getCarPrice(): int
+ getCarType(): String
+ isOwn(): int
+ setCarID(int): void
+ setCarNumber(String): void
+ setCarPrice(int): void
+ setCarType(String): void
+ setOwn(int): void
Building
- buildingHeight: int
- buildingID: int
- buildingOutWall: String
- buildingPrice: String
- buildingSize: int
- buildingYear: int
+ Building()
+ finalize(): void
+ getBuildingHeight(): int
+ getBuildingID(): int
+ getBuildingOutWall(): String
+ getBuildingPrice(): String
+ getBuildingSize(): int
+ getBuildingYear(): int
+ setBuildingHeight(int): void
+ setBuildingID(int): void
+ setBuildingOutWall(String): void
+ setBuildingPrice(String): void
+ setBuildingSize(int): void
+ setBuildingYear(int): void
Driver
- carPurpose: String
- driverID: int
- licenseNum: String
+ Driver()
+ finalize(): void
+ getCarPurpose(): String
+ getDriverID(): int
+ getLicenseNum(): String
+ setCarPurpose(String): void
+ setDriverID(int): void
+ setLicenseNum(String): void
CustomerListImpl
- customerList: ArrayList<Customer>
+ add(Customer): boolean
+ CustomerListImpl()
+ delete(int): boolean
+ finalize(): void
+ getCustomerList(): ArrayList<Customer>
+ search(int): Customer
+ search(Customer): Customer
+ setCustomerList(ArrayList<Customer>): void
+ update(Customer, int): boolean
«interface»
CustomerList
+ add(Customer): boolean
+ delete(int): boolean
+ getCustomerList(): ArrayList<Customer>
+ search(int): Customer
+ search(Customer): Customer
+ setCustomerList(ArrayList<Customer>): void
+ update(Customer, int): boolean
class insurance
SaleRecord
- goalCnt: int
- insuranceID: int
- saleCnt: int
+ getGoalCnt(): int
+ getInsuranceID(): int
+ getSaleCnt(): int
+ setGoalCnt(int): void
+ setInsuranceID(int): void
+ setSaleCnt(int): void
Coverage
- coverageCondition: String
- coverageContent: String
- coverageCost: int
- coverageID: int
- insuranceID: int
+ Coverage()
+ getCoverageCondition(): String
+ getCoverageContent(): String
+ getCoverageCost(): int
+ getCoverageID(): int
+ getInsuranceID(): int
+ setCoverageCondition(String): void
+ setCoverageContent(String): void
+ setCoverageCost(int): void
+ setCoverageID(int): void
+ setInsuranceID(int): void
m_hcoverage
m_mcoverage
m_lcoverage
Approve
- approved: int
- approveID: int
- insuranceID: int
- insuranceProblem: String
- permissionDate: String
- permissionRefuse: String
+ Approve()
+ getApproved(): int
+ getApproveID(): int
+ getInsuranceID(): int
+ getInsuranceProblem(): String
+ getPermissionDate(): String
+ getPermissionRefuse(): String
+ setApproved(int): void
+ setApproveID(int): void
+ setInsuranceID(int): void
+ setInsuranceProblem(String): void
+ setPermissionDate(String): void
+ setPermissionRefuse(String): void
Insurance
- achieveRatio: float
- content: String
- insuranceCost: String
- insuranceID: int
- insuranceName: String
+ m_approve: Approve
+ m_hcoverage: Coverage
+ m_lcoverage: Coverage
+ m_mcoverage: Coverage
+ m_saleRecord: SaleRecord
- type: String
+ getAchieveRatio(): float
+ getContent(): String
+ getInsuranceCost(): String
+ getInsuranceID(): int
+ getInsuranceName(): String
+ getM_approve(): Approve
+ getM_hcoverage(): Coverage
+ getM_lcoverage(): Coverage
+ getM_mcoverage(): Coverage
+ getM_SaleRecord(): SaleRecord
+ getType(): String
+ Insurance()
+ setAchieveRatio(float): void
+ setContent(String): void
+ setInsuranceCost(String): void
+ setInsuranceID(int): void
+ setInsuranceName(String): void
+ setM_approve(Approve): void
+ setM_hcoverage(Coverage): void
+ setM_lcoverage(Coverage): void
+ setM_mcoverage(Coverage): void
+ setM_SaleRecord(SaleRecord): void
+ setType(String): void
InsuranceListImpl
- insuranceList: ArrayList<insurance>
+ add(insurance): boolean
+ delete(int): boolean
+ finalize(): void
+ getInsuranceList(): ArrayList<Insurance>
+ InsuranceListImpl()
+ search(int): insurance
+ setInsuranceList(ArrayList<insurance>): void
«interface»
InsuranceList
+ add(insurance): boolean
+ delete(int): boolean
+ getInsuranceList(): ArrayList<Insurance>
+ search(int): insurance
+ setInsuranceList(ArrayList<insurance>): void
class contract
Contract
- contractID: int
- customer: Customer
- endDate: String
- insurance: Insurance
- insuranceRatio: float
- price: int
- startDate: String
+ calcualteCustomerAge(): int
+ calculateRatio(): float
+ Contract()
+ getContractID(): int
+ getCustomer(): Customer
+ getCustomerID(): int
+ getEndDate(): String
+ getInsurance(): Insurance
+ getInsuranceID(): int
+ getInsuranceRatio(): float
+ getPrice(): int
+ getStartDate(): String
+ setContractID(int): void
+ setCustomer(Customer): void
+ setCustomerID(int): void
+ setEndDate(String): void
+ setInsurance(Insurance): void
+ setInsuranceID(int): void
+ setInsuranceRatio(float): void
+ setPrice(int): void
+ setStartDate(String): void
ContractListImpl
- contractList: ArrayList<Contract>
+ add(Contract): boolean
+ ContractListImpl()
+ delete(int): boolean
+ getContractList(): ArrayList<Contract>
+ search(int): Contract
+ searchByCustomer(int): Contract
+ setContractList(ArrayList<Contract>): void
«interface»
ContractList
+ add(Contract): boolean
+ delete(int): boolean
+ getContractList(): ArrayList<Contract>
+ search(int): Contract
+ searchByCustomer(int): Contract
+ setContractList(ArrayList<Contract>): void

코드 리뷰

```java
// 상품 인가하기
@GetMapping("insurance/approve")
public String insuranceApprove( Model model ){
    this.insuranceList.setInsuranceList( (ArrayList<Insurance>) insuranceService.getInsuranceListNoApprove() );
    model.addAttribute( attributeName: "insuranceNoApprove", this.insuranceList.getInsuranceList() );
    return "insurance/approve";
}
@PostMapping("insurance/approve")
public String insuranceApproveDo( HttpServletRequest hsRequest, Model model ){
    Insurance insurance = this.insuranceList.search( Integer.parseInt( hsRequest.getParameter( name: "insuranceID" ) ) );
    HashMap<String, Object> coverage = new HashMap<~>();
    coverage.put("insuranceID", Integer.parseInt( hsRequest.getParameter( name: "insuranceID" ) ));
    coverage.put("coverageCondition", "high");

    insurance.setM_hcoverage( insuranceService.getCoverage( coverage ) );
    coverage.put("coverageCondition", "middle" );
    insurance.setM_mcoverage( insuranceService.getCoverage( coverage ) );
    coverage.put("coverageCondition", "low" );
    insurance.setM_lcoverage( insuranceService.getCoverage( coverage ) );

    model.addAttribute( attributeName: "insurance", insurance );
    return "insurance/approveDo";
}
@PostMapping("insurance/approveDone")
public String insuranceApproveDone(Approve approve, Model model ){
    insuranceService.createApprove( approve );

    this.insuranceList.search( approve.getInsuranceID() ).setM_approve( approve );

    model.addAttribute( attributeName: "msg", attributeValue: "상품 인가가 완료되었습니다." );
    return index( model );
}
```

코드 리뷰

```
// 상품 인가하기
@GetMapping("insurance/approve")
public String insuranceApprove( Model model ){
    this.insuranceList.setInsuranceList( (ArrayList<Insurance>) insuranceService.getInsuranceListNoApprove() );
    model.addAttribute( attributeName: "insuranceNoApprove", this.insuranceList.getInsuranceList() );
    return "insurance/approve";
}
@PostMapping("insurance/approve")
public String insuranceApproveDo( HttpServletRequest hsRequest, Model model ){
    Insurance insurance = this.insuranceList.search( Integer.parseInt( hsRequest.getParameter( name: "insuranceID" ) ) );
    HashMap<String, Object> coverage = new HashMap<~>();
    coverage.put("insuranceID", Integer.parseInt( hsRequest.getParameter( name: "insuranceID" ) ));
    coverage.put("coverageCondition", "high");

    insurance.setM_hcoverage( insuranceService.getCoverage( coverage ) );
    coverage.put("coverageCondition", "middle" );
    insurance.setM_mcoverage( insuranceService.getCoverage( coverage ) );
    coverage.put("coverageCondition", "low" );
    insurance.setM_lcoverage( insuranceService.getCoverage( coverage ) );

    model.addAttribute( attributeName: "insurance", insurance );
    return "insurance/approveDo";
}
@PostMapping("insurance/approveDone")
public String insuranceApproveDone(Approve approve, Model model ){
    insuranceService.createApprove( approve );

    this.insuranceList.search( approve.getInsuranceID() ).setM_approve( approve );

    model.addAttribute( attributeName: "msg", attributeValue: "상품 인가가 완료되었습니다." );
    return index( model );
}
```

코드 리뷰

```java
@Service
public class InsuranceService {
    @Autowired
    private InsuranceMapper insuranceMapper;

    public int create(Insurance insurance) { return insuranceMapper.create( insurance ); }
    public int createCoverage(Coverage coverage) { return insuranceMapper.createCoverage( coverage ); }
    public int createApprove(Approve approve) { return insuranceMapper.createApprove( approve ); }
    public List<Insurance> getInsuranceList(){ return insuranceMapper.retrieve(); }
    public List<Insurance> getInsuranceListNoApprove(){ return insuranceMapper.retrieveNoApprove(); }
    public List<Insurance> getInsuranceListApprove(){return insuranceMapper.retrieveApprove(); }
    public Insurance getInsurance(int insuranceID ){ return insuranceMapper.retrieveByID( insuranceID ); }
    public Coverage getCoverage( HashMap<String, Object> coverageInfo ){ return insuranceMapper.retrieveCoverage( coverageInfo ); }

    public int createSaleRecord(SaleRecord saleRecord) { return insuranceMapper.createSaleRecord(saleRecord); }
    public SaleRecord getSaleRecord( int insuranceID ) { return insuranceMapper.retrieveSaleRecord( insuranceID ); }
}
```

코드 리뷰

```java
@Mapper
public interface InsuranceMapper {
    List<Insurance> retrieve();
    List<Insurance> retrieveNoApprove();
    List<Insurance> retrieveApprove();
    int create( Insurance insurance );
    int createCoverage( Coverage coverage );
    int createApprove( Approve approve );
    int createSaleRecord(SaleRecord saleRecord);
    Insurance retrieveByID( int insuranceID );

    Coverage retrieveCoverage(HashMap<String, Object> coverageInfo);
    SaleRecord retrieveSaleRecord( int insuranceID );
```

코드 리뷰

```xml
<mapper namespace="com.insurance.Insurance_spring.mapper.InsuranceMapper">
    <insert id="create" parameterType="com.insurance.Insurance_spring.domain.insurance.Insurance" useGeneratedKeys="true" keyProperty="insuranceID">
        INSERT INTO insurance ( insuranceName, insuranceCost, content, type ) values ( #{insuranceName}, #{insuranceCost}, #{content}, #{type} )
    </insert>
    <insert id="createCoverage" parameterType="com.insurance.Insurance_spring.domain.insurance.Coverage" useGeneratedKeys="true" keyProperty="coverageID">
        INSERT INTO coverage ( insuranceID, coverageCondition, coverageContent, coverageCost ) values ( #{insuranceID}, #{coverageCondition}, #{coverageContent}, #{coverageCost} )
    </insert>
    <insert id="createApprove" parameterType="com.insurance.Insurance_spring.domain.insurance.Approve" useGeneratedKeys="true" keyProperty="approveID">
        INSERT INTO approve ( insuranceID, approved, permissionDate, permissionRefuse, insuranceProblem ) values ( #{insuranceID}, #{approved}, #{permissionDate}, #{permissionRefuse}, #{insuranceProblem} )
    </insert>
    <insert id="createSaleRecord" parameterType="com.insurance.Insurance_spring.domain.insurance.SaleRecord" useGeneratedKeys="true" keyProperty="insuranceID">
        INSERT INTO  salerecord ( insuranceID, goalCnt, saleCnt ) values (#{insuranceID}, #{goalCnt}, #{saleCnt} )
    </insert>

    <select id="retrieve" resultType="com.insurance.Insurance_spring.domain.insurance.Insurance">
        SELECT * FROM insurance
    </select>
    <select id="retrieveNoApprove" resultType="com.insurance.Insurance_spring.domain.insurance.Insurance">
        select * from insurance left outer join approve using(insuranceID) where approve.insuranceID IS NULL
    </select>
    <select id="retrieveByID" resultType="com.insurance.Insurance_spring.domain.insurance.Insurance">
        SELECT * FROM insurance WHERE insuranceID = #{insuranceID} LIMIT 1
    </select>
    <select id="retrieveCoverage" parameterType="HashMa" resultType="com.insurance.Insurance_spring.domain.insurance.Coverage">
        SELECT * FROM coverage WHERE insuranceID = #{insuranceID} AND coverageCondition = #{coverageCondition} LIMIT 1
    </select>
    <select id="retrieveApprove" resultType="com.insurance.Insurance_spring.domain.insurance.Insurance">
        select * from insurance left outer join approve using(insuranceID) where approve.approved = 1
    </select>
    <select id="retrieveSaleRecord" resultType="com.insurance.Insurance_spring.domain.insurance.SaleRecord">
        select * from salerecord where insuranceID=#{insuranceID} limit 1
    </select>

    <update id="updateByID" parameterType="com.insurance.Insurance_spring.domain.insurance.Insurance">
        update pcustomer set insuranceName=#{insuranceName}, insuranceCost=#{insuranceCost}, content=#{content} where insuranceID=#{insuranceID}
    </update>
</mapper>
```

코드 리뷰

```java
// 상품 인가하기
@GetMapping("insurance/approve")
public String insuranceApprove( Model model ){
    this.insuranceList.setInsuranceList( (ArrayList<Insurance>) insuranceService.getInsuranceListNoApprove() );
    model.addAttribute( attributeName: "insuranceNoApprove", this.insuranceList.getInsuranceList() );
    return "insurance/approve";
}
@PostMapping("insurance/approve")
public String insuranceApproveDo( HttpServletRequest hsRequest, Model model ){
    Insurance insurance = this.insuranceList.search( Integer.parseInt( hsRequest.getParameter( name: "insuranceID" ) ) );
    HashMap<String, Object> coverage = new HashMap<~>();
    coverage.put("insuranceID", Integer.parseInt( hsRequest.getParameter( name: "insuranceID" ) ));
    coverage.put("coverageCondition", "high");

    insurance.setM_hcoverage( insuranceService.getCoverage( coverage ) );
    coverage.put("coverageCondition", "middle" );
    insurance.setM_mcoverage( insuranceService.getCoverage( coverage ) );
    coverage.put("coverageCondition", "low" );
    insurance.setM_lcoverage( insuranceService.getCoverage( coverage ) );

    model.addAttribute( attributeName: "insurance", insurance );
    return "insurance/approveDo";
}
@PostMapping("insurance/approveDone")
public String insuranceApproveDone(Approve approve, Model model ){
    insuranceService.createApprove( approve );

    this.insuranceList.search( approve.getInsuranceID() ).setM_approve( approve );

    model.addAttribute( attributeName: "msg", attributeValue: "상품 인가가 완료되었습니다." );
    return index( model );
}
```

코드 리뷰

```
<body>
<div class="container">
  <button type="button" style="..." onclick="location.href='/'">
    <img style="..." src="http://localhost:8080/home4.png">
  </button>
  <form class="d-none" id="form_approve" action="/insurance/approve" method="post">
    <input type="hidden" name="insuranceID">
  </form>
  <div class="row px-2 mt-3">
    <h2>인가되지 않은 보험 목록</h2>
    <table class="table">
      <thead>
      <tr>
        <th>#</th>
        <th>보험이름</th>
        <th></th>
      </tr>
      </thead>
      <tbody>
      <tr th:each="insurance : ${insuranceNoApprove}">
        <td th:text="${insurance.insuranceID}"></td>
        <td th:text="${insurance.insuranceName}"></td>
        <td>
          <button class="btn btn-secondary" th:onclick="approve( [[${insurance.insuranceID}]] )">선택</button>
        </td>
      </tr>
      </tbody>
    </table>
  </div>
</div>

</body>
```

인가되지 않은 보험 목록

#	보험이름	
8	오늘만든건물화재	선택

코드 리뷰

```java
// 상품 인가하기
@GetMapping("insurance/approve")
public String insuranceApprove( Model model ){
    this.insuranceList.setInsuranceList( (ArrayList<Insurance>) insuranceService.getInsuranceListNoApprove() );
    model.addAttribute( attributeName: "insuranceNoApprove", this.insuranceList.getInsuranceList() );
    return "insurance/approve";
}
@PostMapping("insurance/approve")
public String insuranceApproveDo( HttpServletRequest hsRequest, Model model ){
    Insurance insurance = this.insuranceList.search( Integer.parseInt( hsRequest.getParameter( name: "insuranceID" ) ) );
    HashMap<String, Object> coverage = new HashMap<~>();
    coverage.put("insuranceID", Integer.parseInt( hsRequest.getParameter( name: "insuranceID" ) ));
    coverage.put("coverageCondition", "high");

    insurance.setM_hcoverage( insuranceService.getCoverage( coverage ) );
    coverage.put("coverageCondition", "middle" );
    insurance.setM_mcoverage( insuranceService.getCoverage( coverage ) );
    coverage.put("coverageCondition", "low" );
    insurance.setM_lcoverage( insuranceService.getCoverage( coverage ) );

    model.addAttribute( attributeName: "insurance", insurance );
    return "insurance/approveDo";
}
@PostMapping("insurance/approveDone")
public String insuranceApproveDone(Approve approve, Model model ){
    insuranceService.createApprove( approve );

    this.insuranceList.search( approve.getInsuranceID() ).setM_approve( approve );

    model.addAttribute( attributeName: "msg", attributeValue: "상품 인가가 완료되었습니다." );
    return index( model );
}
```

코드 리뷰

```java
public class InsuranceListImpl implements InsuranceList {
    // attribute
    private ArrayList<Insurance> insuranceList;

    public InsuranceListImpl() { this.insuranceList = new ArrayList<Insurance>(); }
    // getter & setter
    public ArrayList<Insurance> getInsuranceList() {return insuranceList;}
    public void setInsuranceList(ArrayList<Insurance> insuranceList) {  this.insuranceList = insuranceList; }

    public void finalize() throws Throwable {

    }
    public boolean add(Insurance insurance){
        if(this.insuranceList.add(insurance)) return true;
        else return false;
    }
    public boolean delete(int insuranceId){
        for(Insurance insurance : this.insuranceList) {
            if(insurance.getInsuranceID() == insuranceId) {
                if(this.insuranceList.remove(insurance)) return true;
                break;
            }
        }
        return false;
    }
    public Insurance search(int insuranceId){
        for(Insurance insurance : this.insuranceList) {
            if(insurance.getInsuranceID() == insuranceId) return insurance;
        }
        return null;
    }
```

THANK YOU

감사합니다.