REST API

/employee

 POST: Create new employee

 GET: List of all employees

/employee/:employeeId

 PATCH: Update employee information

 GET: Get employee information

 DELETE: Remove employee

/employee/:employeeId/dependent

 POST: Create a new dependent for the employee

 GET: List of all dependents for the employee

/employee/:employeeId/dependent/:dependentId

 PATCH: Update dependent information

 GET: Get dependent information

 DELETE: Remove dependent

/employee/:employeeId/benefit-deductions

 GET: Total benefit deductions for given employee for year, month, and pay-period

/employee/:employeeId/adjusted-income

 GET: Object containing yearly, monthly, and per-paycheck adjusted income totals for the given employee

/benefits/yearly/employee-cost

 PUT: Update the yearly cost of employee benefits

 GET: The yearly cost of employee benefits

/benefits/yearly/dependent-cost

 PUT: Update the yearly cost of dependent benefits

 GET: The yearly cost of dependent benefits

/benefits/all/discounts/starting-letter

 POST: Object containing the starting letter to discount and percentage by which to discount

 GET: List of all starting letter discounts

/benefits/all/discounts/starting-letter/:discountId

 GET: Object containing the starting letter to discount and percentage by which to discount

 DELETE: Remove the given discountId

/paycheck/amount

 PUT: Update the amount of money given in each paycheck

 GET: The amount of money given in each paycheck

/paycheck/yearly-total

 PUT: Update the number of paychecks per year

 GET: The number of paychecks per year

/expenses/salary/summary
    GET: An object containing the total of all employee salaries and total of all deducted benefits by year, month, and pay period (one paycheck)

Backend Design

BenefitsCalculatorApp.java -- Spring boot application base
Repository.java -- Basic generic storage class that adds a unique ID to all stored objects

EmployeeController.java -- Controller for /employee API endpoints
BenefitsController.java -- Controller for /benefits API endpoints
PaycheckController.java -- Controller for /paycheck API endpoints
ExpensesController.java -- Controller for /expenses API endpoints

Employee.java -- Represents an employee entity
Dependent.java -- Represents a dependent entity
StartingLetterDiscount.java -- Represents a starting letter discount entity

BenefitsInfo.java -- A singleton class containing information about benefit costs
EmployeeInfo.java -- A singleton class maintaining the list of employees
PaycheckInfo.java -- A singleton class containing information about paychecks
SalaryCalculator.java -- A singleton class that performs salary calculations (This class exists to reduce coupling between the three info classes)