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IT 206 PA 3
7/14/2024

Class Descriptions

1.) Policy
    a.) Attributes
        i.)   String policyNumber
        ii.)   String policyOwner
        iii.) Double yearlyPremium
    b.) Methods
        i.)   Constructor: Policy(String policyNumber, String policyOwner, double yearlyPremium)
        ii.)   Getters: getPolicyNumber(), getPolicyOwner(), getYearlyPremium()
        iii.) toString(): Returns a string representation of the policy

2.) AutomobilePolicy
    a.) Attributes
        i.)   String vehicleId
        ii.)   String make
        iii.) String model
    b.) Methods
        i.)   Constructor: AutomobilePolicy(String policyNumber, String policyOwner, double yearlyPremium, String vehicleId, String make, String model)
        ii.)   Overrides: toString()

3.) HomePolicy
    a.) Attributes:
        i.)   String streetAddress
        ii.)   int yearBuilt
        iii.) double deductible
    b.) Methods:
        i.)   Constructor: HomePolicy(String policyNumber, String policyOwner, double yearlyPremium, String streetAddress, int yearBuilt, double deductible)
        ii.)   Overrides: toString()

4.) LifePolicy
    a.) Attributes:
        i.)   String beneficiaryName
        ii.)   double faceValue
    b.) Methods:
        i.)   Constructor: LifePolicy(String policyNumber, String policyOwner, double yearlyPremium, String beneficiaryName, double faceValue)
        ii.)   Overrides: toString()

5.) InsurancePolicyManager
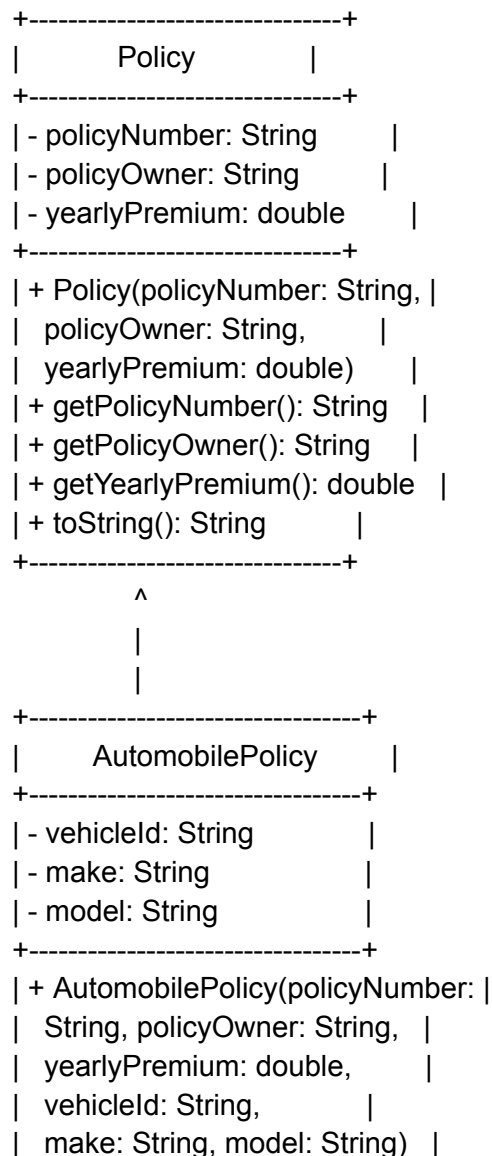
a.) Attributes:
　　i.)　Policy[] policies
　　ii.)　int policyCount
b.) Methods:
　　i.)　addPolicy(Policy policy): Adds a policy to the array
　　ii.)　removePolicy(String policyNumber): Removes a policy by its policy number
　　iii.)　viewPolicies(): Displays all policies
　　iv.)　run(): Runs the main loop for user interaction
　　v.)　addPolicyMenu(): Handles the input for adding policies

UML DIAGRAM

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+-------------------------------+
|           Policy              |
+-------------------------------+
| - policyNumber: String        |
| - policyOwner: String         |
| - yearlyPremium: double       |
+-------------------------------+
| + Policy(policyNumber: String, |
|   policyOwner: String,         |
|   yearlyPremium: double)       |
| + getPolicyNumber(): String    |
| + getPolicyOwner(): String     |
| + getYearlyPremium(): double   |
| + toString(): String           |
+-------------------------------+
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           |
           |
+----------------------------------+
|          AutomobilePolicy        |
+----------------------------------+
| - vehicleId: String              |
| - make: String                   |
| - model: String                  |
+----------------------------------+
| + AutomobilePolicy(policyNumber: |
|   String, policyOwner: String,   |
|   yearlyPremium: double,         |
|   vehicleId: String,             |
|   make: String, model: String)   |
```

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| + toString(): String       |
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          |
          |
+--------------------------------+
|           HomePolicy           |
+--------------------------------+
| - streetAddress: String     |
| - yearBuilt: int            |
| - deductible: double        |
+--------------------------------+
| + HomePolicy(policyNumber:    |
|   String, policyOwner: String, |
|   yearlyPremium: double,      |
|   streetAddress: String,      |
|   yearBuilt: int,             |
|   deductible: double)         |
| + toString(): String         |
+--------------------------------+
          ^
          |
          |
+--------------------------------+
|           LifePolicy          |
+--------------------------------+
| - beneficiaryName: String     |
| - faceValue: double           |
+--------------------------------+
| + LifePolicy(policyNumber:    |
|   String, policyOwner: String, |
|   yearlyPremium: double,       |
|   beneficiaryName: String,     |
|   faceValue: double)          |
| + toString(): String          |
+--------------------------------+

+--------------------------------+
|     InsurancePolicyManager    |
+--------------------------------+
| - policies: Policy[]          |
| - policyCount: int            |
+--------------------------------+
| + addPolicy(policy: Policy): void|
```

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| + removePolicy(policyNumber:   |
|   String): void                |
| + viewPolicies(): void         |
| + run(): void                  |
| + addPolicyMenu(): void        |
+--------------------------------+
```