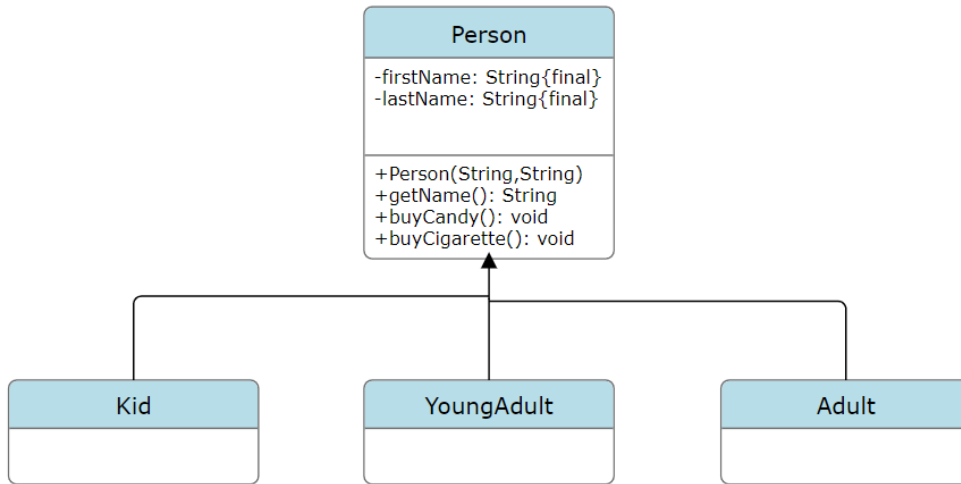


MATH 335E Programming Algorithms

Lab-9 / CRN: 21193

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Question 1

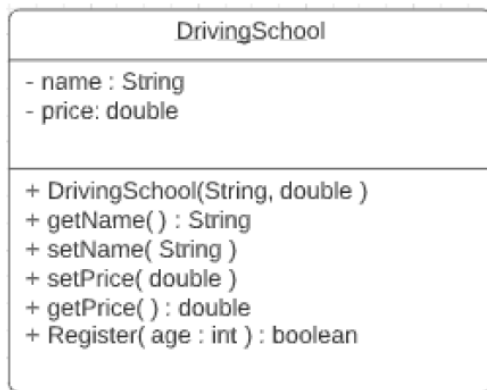


People will be categorized into three age groups: children, young adults, and adults. Each person must be assigned a unique name, which cannot be altered.

In the **Person** class, the **buyCandy** and **buyCigarette** methods should display a simple message indicating that "contents of these methods differ for each age group.". The messages to be provided within these methods for each age group are as follows:

- If the person is a **child**, he/she can buy candy but not a cigarette.
- If the person is a **young adult**, he/she can buy both candy and also cigarette. When he/she buys a cigarette, a message that he/she must stop smoking should be written on the screen.
- If the person is an **adult**, he/she can buy candy and cigarette. And when he/she buys candy, a message that he/she must be careful about getting fat should be written on the screen.
- Write a test class that includes the main method you desire to test and run your program.

Question 2 (Driving School)



The UML diagram for the `DrivingSchool` class is illustrated in the figure above. Write a Java source code for this class, considering following.

- Member price cannot be negative. If the member price is negative, you must throw an exception.
- `Register()`: This method registers a person whose age is given as a parameter. Otherwise, you must throw an exception.

To throw an exception, use a try-catch block.