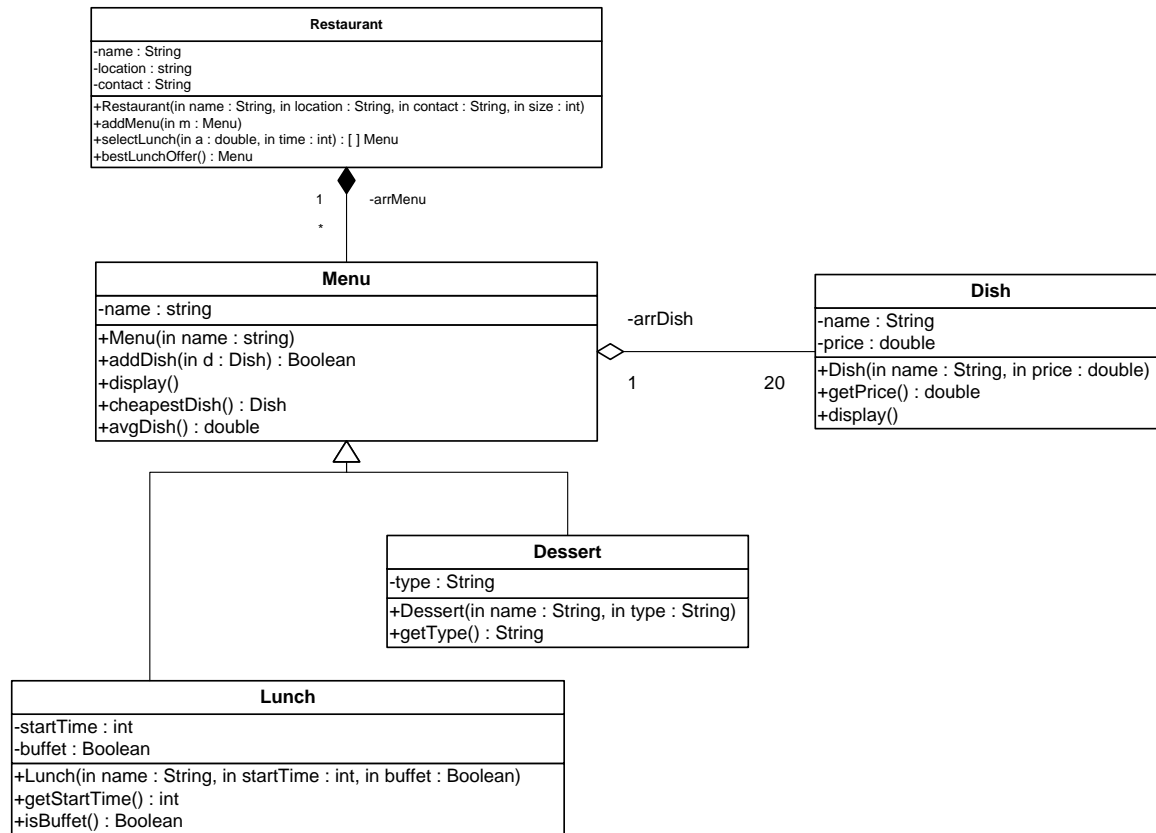


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Exercise 1



***Dish* class:**

- Attributes:
 - ***name***: The name of the ***Dish***.
 - ***price***: The selling price of the ***Dish***.
- Methods:
 - ***Dish(name: string, price: double)***: constructor
 - ***getPrice()***: This method returns the price of the ***Dish***.
 - ***display()***: This method displays the name and the price of the ***Dish***.

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Menu class

- Attributes:
 - **name**: The name of the **Menu**.
- Methods:
 - **Menu(name: string)**: Constructor.
 - **addDish(d: Dish)**: This method adds a Dish to the Menu. It returns true if the **Dish** *d* is added; false otherwise.
 - **display()**: This method displays all the attributes of the **Menu** (or **Lunch** or **Dessert**). It displays also all the Dishes of the Menu.
 - **cheapestDish()**: This method returns the **Dish** having the lowest price.
 - **avgDish()**: This method returns the average price of all Dishes in the **Menu**.

Dessert class:

- Attributes:
 - **type**: It indicates the type of the **Dessert**. E.g. “Ice-cream”, “Fruit”, “Cake”, etc.
- Methods:
 - **Dessert(name: string, type: String)**: Constructor.
 - **getType()**: This method returns the type of the **Dessert**.

Lunch class:

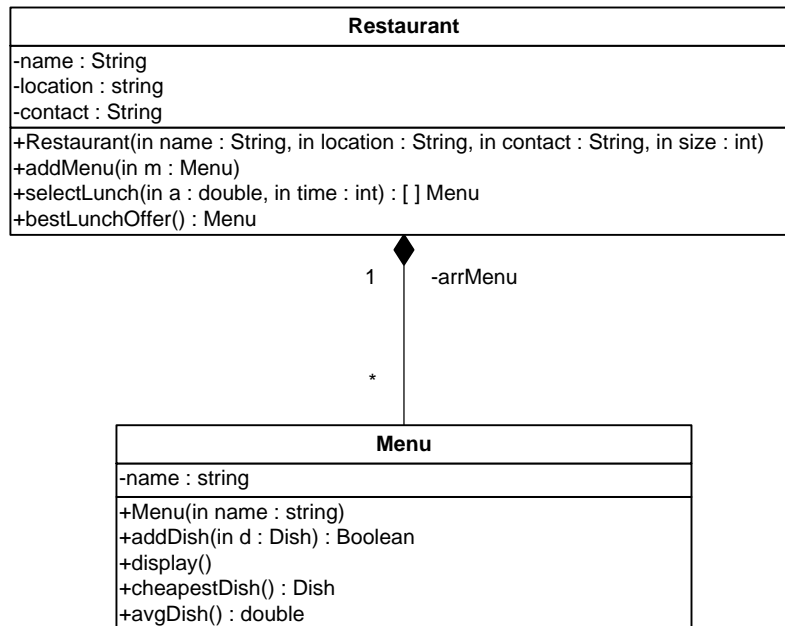
- Attributes:
 - **startTime**: It indicates the time when the **Lunch** starts.
 - **buffet**: It indicates whether the **Lunch** is a buffet or not.
- Methods:
 - **Lunch(name: string, startTime: int, buffet: boolean)**: Constructor.
 - **getStartTime()**: This method returns the start time of the **Lunch**.
 - **isBuffet()**: This method returns the value of the buffet attribute of the **Lunch**.

QUESTION: Translate into Java code the class **Menu** and the class **Dessert**.

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Exercise 2:

Let's consider the same class *Menu* described in exercise 1.



Restaurant class:

- Attributes:
 - **name**: The name of the *Restaurant*.
 - **location**: The location of the *Restaurant*.
 - **contact**: The contact information of the *Restaurant*.
- Methods:
 - **Restaurant(name: String, location: String, contact: String, size: int)**: Constructor.
 - **addMenu(m: Menu)**: This method adds the *Menu m* to the *Restaurant*.
 - **selectLunch(a: double, time: int)**: This method returns all *Lunches* which the average *Dish* price is less than *a* and starts at *time*.
 - **bestLunchOffer()**: This method returns the *Menu* containing the cheapest *Dish*.

QUESTION: Translate into Java code the class *Restaurant*.