

PizzaRestaurant

This is a simple console application for a university assignment for ordering virtual pizza. A client can order different pizzas from different restaurants and put some toppings on the pizza if he wants.

Commands

- **chooseRestaurant()** - a client can choose the restaurant he wants to order from by typing the restaurant's number.
- **choosePizza()** - then, he will be given a menu for the chosen restaurant and he can select his preferred pizza.
- **addToppings()** - if the client wants, he can add different toppings to his pizza.

Classes and public methods

Client

- **Client()** – create a object of class Client.
- **void showRestaurants()** – shows the available restaurants for the client. It doesn't accept any arguments and returns void.
- **void makeOrder()** – represents the process of ordering pizza. It doesn't accept any arguments and returns void.

PizzaRestaurant

- **PizzaRestaurant()** – default constructor for an abstract class PizzaRestaurant.
 - **virtual Pizza* createPizza(std::string pizzaName) = 0** – pure virtual method that will be overwritten in the derivatives. It accepts a pizza name as a string as an argument and returns a pointer of type Pizza, created from the pizza name.
 - **virtual Pizza* addTopping(Pizza* pizza, std::string topping)** – adds a topping to the pizza. It accepts a pizza of type Pizza*, which is the pizza to which the topping will be added and a topping as a string which is the topping's name. It returns an object of type Pizza* which is the decorated pizza.
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- **virtual void showMenu() = 0** – pure virtual method that will be overwritten in the derivatives. It shows the menu for a concrete restaurant. It doesn't accept any arguments and returns void.
- **virtual void showToppings()** – shows the available toppings for the pizza. It doesn't accept any arguments and returns void.

DominosRestaurant

- **DominosRestaurant()** – creates an object of class DominosRestaurant.
- **virtual Pizza* createPizza(std::string pizzaName) override** – creates a pizza. It accepts a pizza name as a string as an argument and returns a pointer of type Pizza, created from the pizza name.
- **virtual void showMenu() override** – shows the menu for the restaurant. It doesn't accept any arguments and returns void.

MrPizzaRestaurant

- **MrPizzaRestaurant()** – creates and object of class MrPizzaRestaurant.
- **virtual Pizza* createPizza(std::string pizzaName) override** – creates a pizza. It accepts a pizza name as a string as an argument and returns a pointer of type Pizza, created from the pizza name.
- **virtual void showMenu() override** – shows the menu for the restaurant. It doesn't accept any arguments and returns void.

Pizza

- **Pizza() = default** – default constructor for an abstract class Pizza.
- **virtual std::string getDescription() = 0** – pure virtual method that will be overwritten in the derivatives. Returns the description of the pizza as a string. It doesn't accept any arguments and returns a type of string.
- **virtual double getPrice() = 0** – pure virtual method that will be overwritten in the derivatives. Returns the price of the pizza. It doesn't accept any arguments and returns a type of double.

DominosHawai

- **DominosHawai()** – creates an object of class DominosHawai.
 - **virtual std::string getDescription() override** – returns the description of the pizza as a string. It doesn't accept any arguments and returns a type of string.
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- **virtual double getPrice() override** – returns the price of the pizza. It doesn't accept any arguments and returns a type of double.

DominosMargaritta

- **DominosMargaritta()** – creates an object of class DominosMargaritta.
- **virtual std::string getDescription() override** – returns the description of the pizza as a string. It doesn't accept any arguments and returns a type of string.
- **virtual double getPrice() override** – returns the price of the pizza. It doesn't accept any arguments and returns a type of double.

DominosPeperoni

- **DominosPeperoni()** – creates an object of class DominosPeperoni.
- **virtual std::string getDescription() override** – returns the description of the pizza as a string. It doesn't accept any arguments and returns a type of string.
- **virtual double getPrice() override** – returns the price of the pizza. It doesn't accept any arguments and returns a type of double.

MrPizzaHawai

- **MrPizzaHawai()** – creates an object of class MrPizzaHawai.
- **virtual std::string getDescription() override** – returns the description of the pizza as a string. It doesn't accept any arguments and returns a type of string.
- **virtual double getPrice() override** – returns the price of the pizza. It doesn't accept any arguments and returns a type of double.

MrPizzaMargaritta

- **MrPizzaMargaritta()** – creates an object of class MrPizzamargaritta.
- **virtual std::string getDescription() override** – returns the description of the pizza as a string. It doesn't accept any arguments and returns a type of string.
- **virtual double getPrice() override** – returns the price of the pizza. It doesn't accept any arguments and returns a type of double.

MrPizzaPeperoni

- **MrPizzaPeperoni()** – creates an object of class MrPizzaPeperoni.
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- **virtual std::string getDescription() override** – returns the description of the pizza as a string. It doesn't accept any arguments and returns a type of string.
- **virtual double getPrice() override** – returns the price of the pizza. It doesn't accept any arguments and returns a type of double.

ToppingsDecorator

- **ToppingsDecorator() = default** – default constructor for an abstract class ToppingsDecorator.
- **virtual std::string getDescription() = 0** – pure virtual method that will be overwritten in the derivatives. Returns the description of the topping as a string. It doesn't accept any arguments and returns a type of string.
- **virtual double getPrice() = 0** – pure virtual method that will be overwritten in the derivatives. Returns the price of the pizza. It doesn't accept any arguments and returns a type of double.

DijonMustard

- **DijonMustard()** – default constructor for the creation of the object of class DijonMustard.
- **DijonMustard(Pizza* pizza)** – constructs a pizza with the topping. It accepts a pointer to Pizza (Pizza*) as an argument.
- **virtual std::string getDescription() override** – returns the description of the topping which consists of pizza and a topping as a string. It doesn't accept any arguments and returns a type of string.
- **virtual double getPrice() override** – returns the new price of the pizza when the topping is added. It doesn't accept any arguments and returns a type of double.

HeinzKetchup

- **HeinzKetchup()** – default constructor for the creation of the object of class HeinzKetchup.
 - **HeinzKetchup(Pizza* pizza)** – constructs a pizza with the topping. It accepts a pointer to Pizza (Pizza*) as an argument.
 - **virtual std::string getDescription() override** – returns the description of the topping which consists of pizza and a topping as a string. It doesn't accept any arguments and returns a type of string.
 - **virtual double getPrice() override** – returns the new price of the pizza when the topping is added. It doesn't accept any arguments and returns a type of double.
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GarlicSauce

- **GarlicSauce()** – default constructor for the creation of the object of class GarlicSauce.
 - **GarlicSauce(Pizza* pizza)** - constructs a pizza with the topping. It accepts a pointer to Pizza (Pizza*) as an argument.
 - **virtual std::string getDescription() override** – returns the description of the topping which consists of pizza and a topping as a string. It doesn't accept any arguments and returns a type of string.
 - **virtual double getPrice() override** – returns the new price of the pizza when the topping is added. It doesn't accept any arguments and returns a type of double.
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