Entrega PjBL - DC e DPs

Ary Farah, Barbara Tippa, Breno Souza, Carol Assis, Pedro Fauth, Thiago Kwon

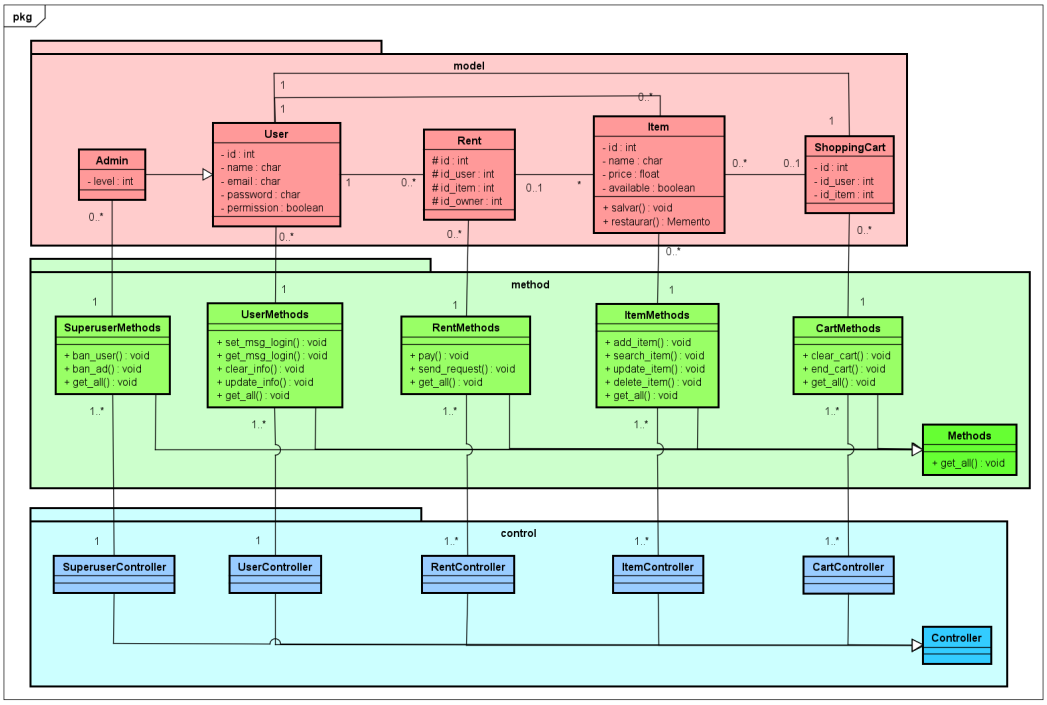
DC = Diagrama de Classes

DP = Design Patterns

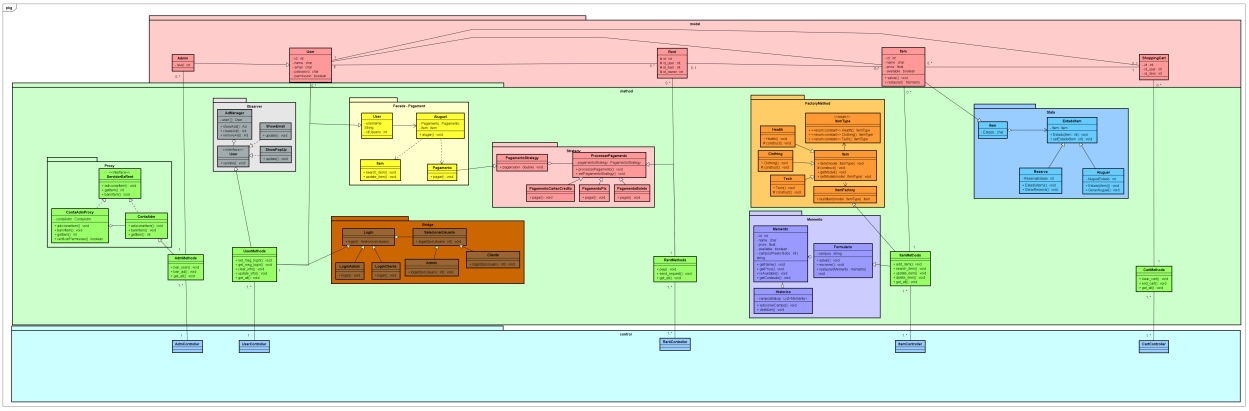
- Nós desenvolvemos o projeto EzRent. Todos os diagramas com esse nome são referentes ao nosso projeto.
- Os Design Patterns que deveriam ser feitos para outro grupo foram destinados ao projeto AutoAlle, do Grupo 11 - Enzo Alle, Guilherme Dias e Gustavo Noleto

Diagrama de Classes

1. Diagrama de Classes

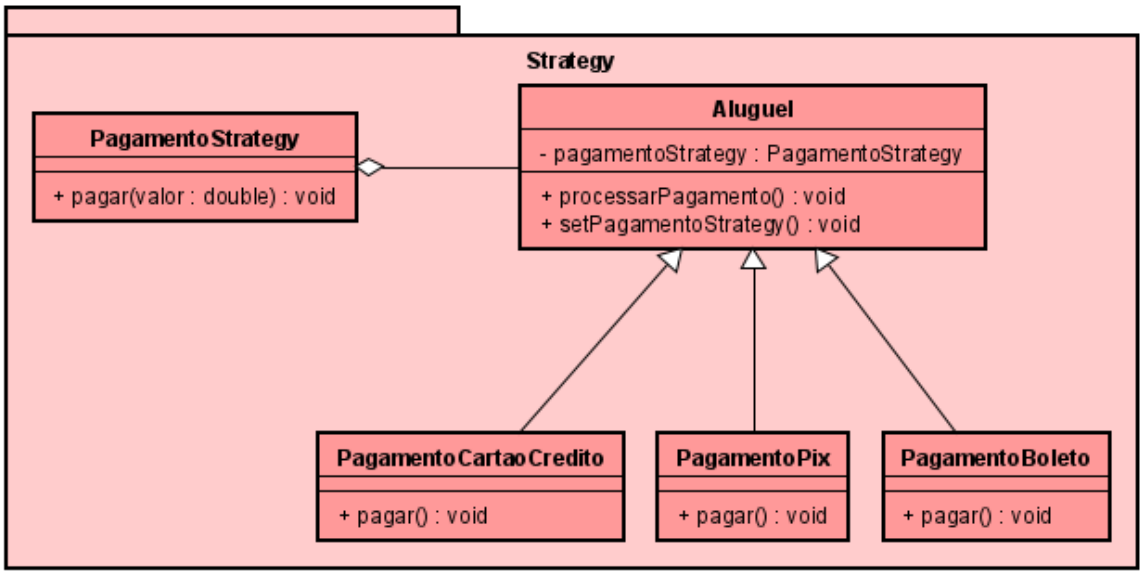


2. Diagrama de Classes Com Design Patterns

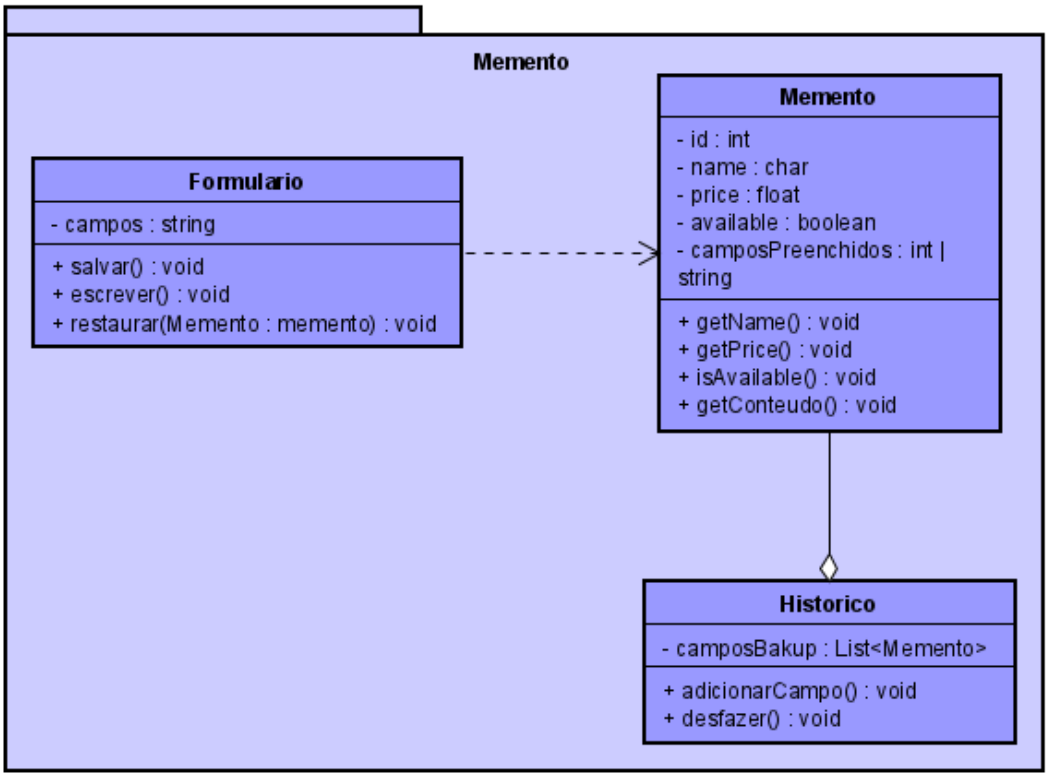


Design Patterns - EzRent

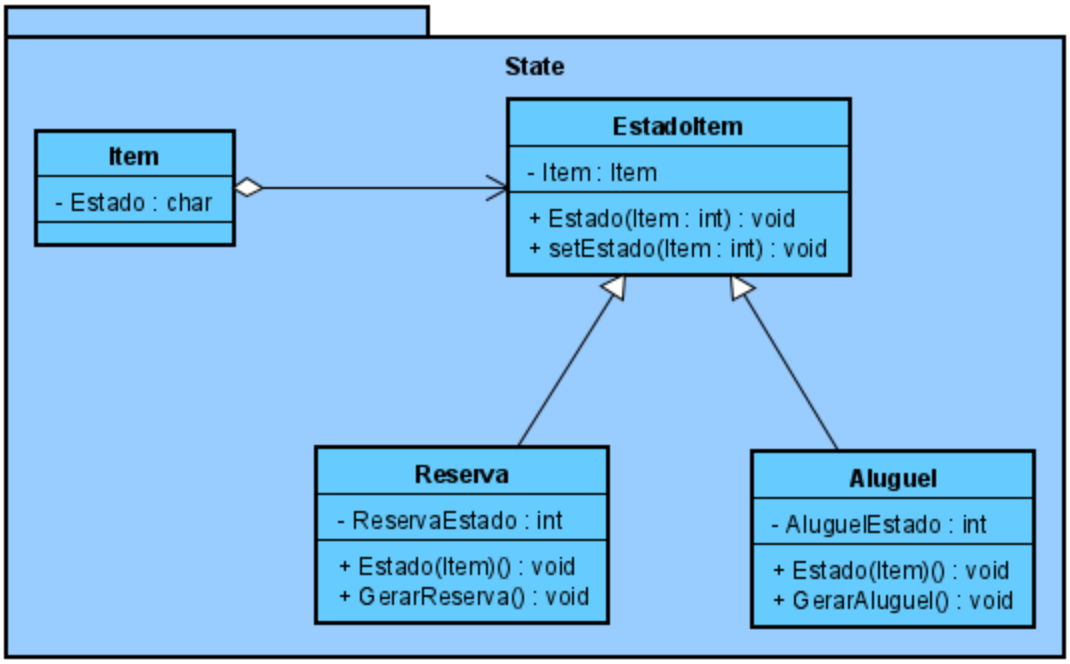
1. Strategy



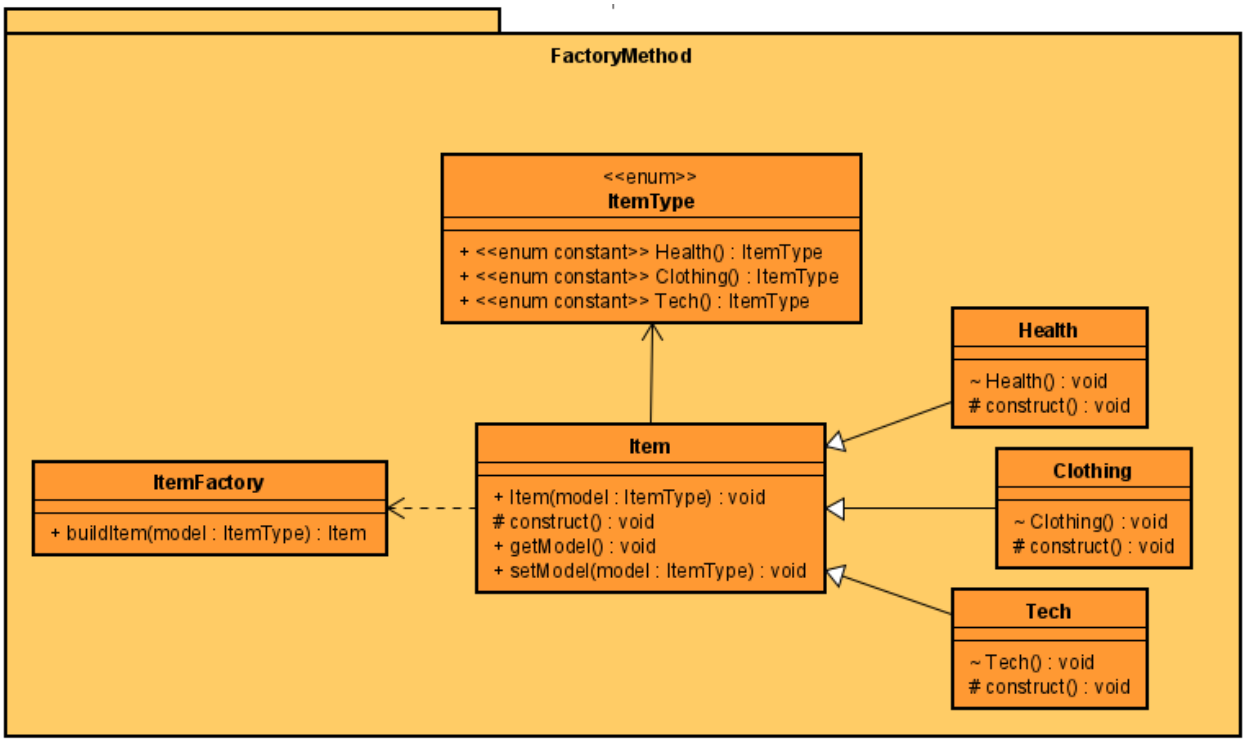
2. Memento



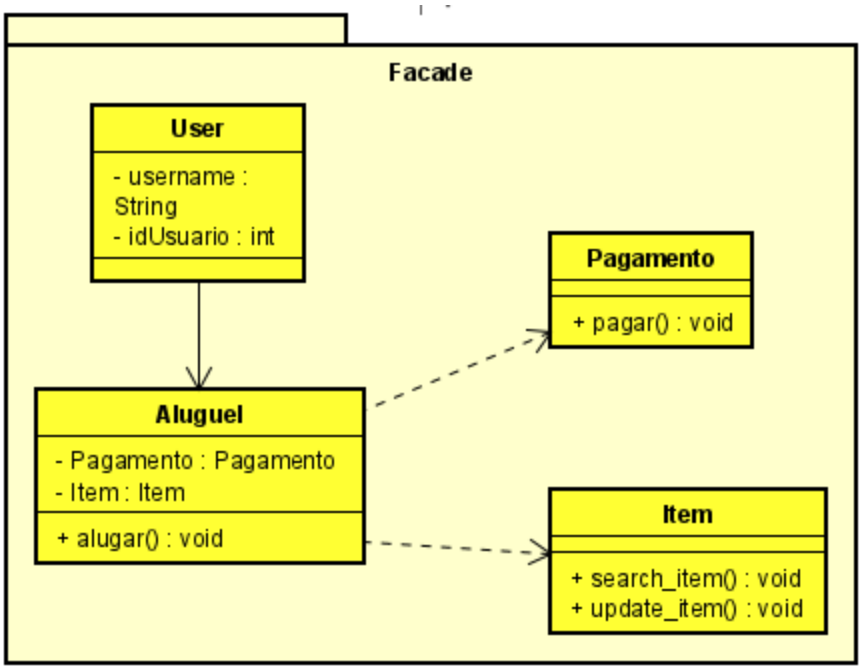
3. State



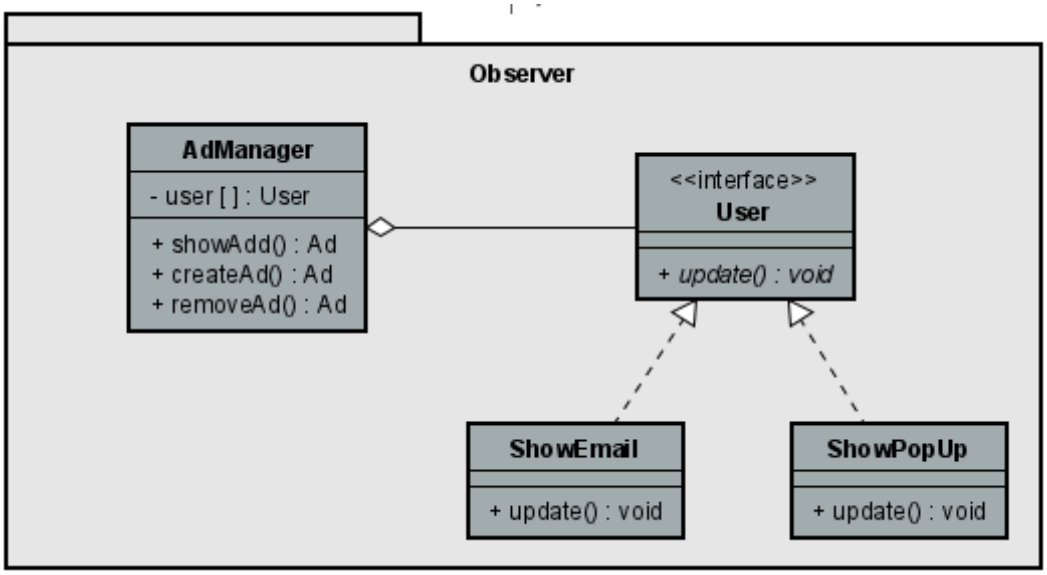
4. Factory Method



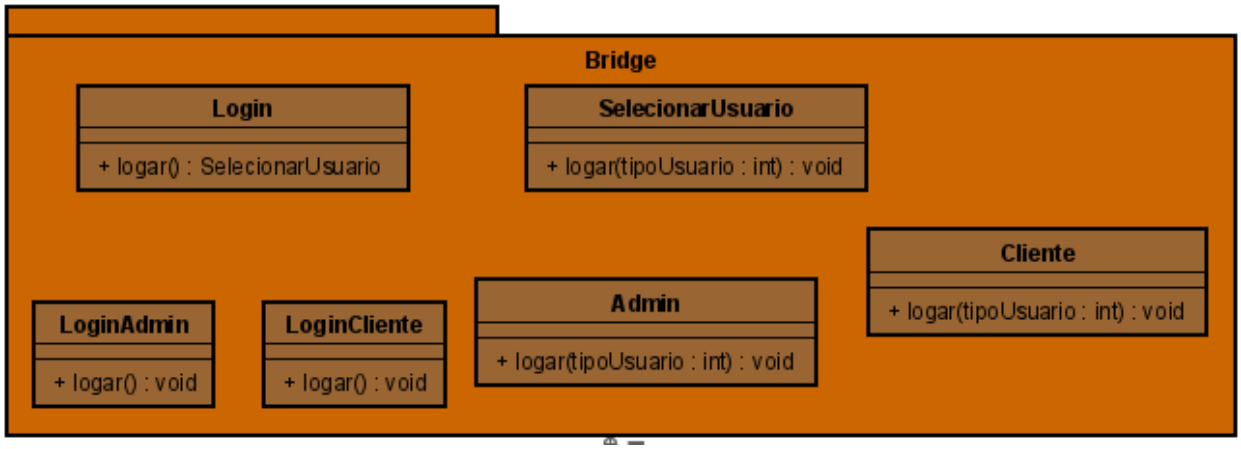
5. Facade



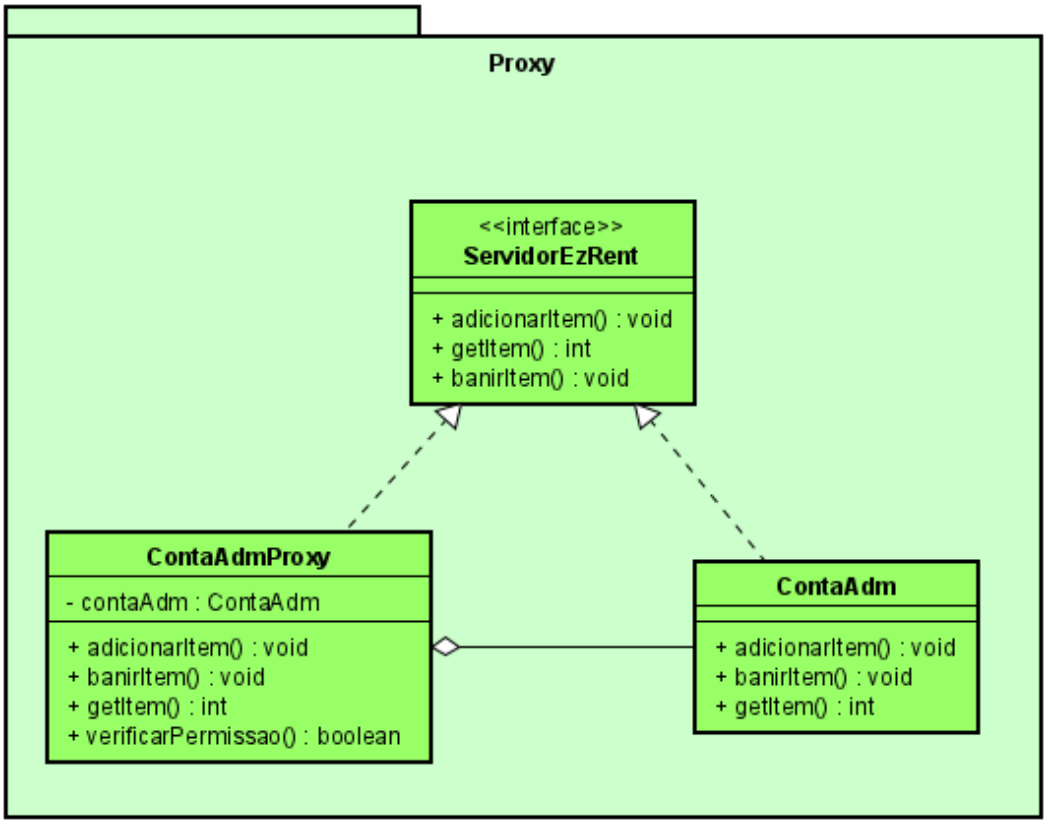
6. Observer



7. Bridge

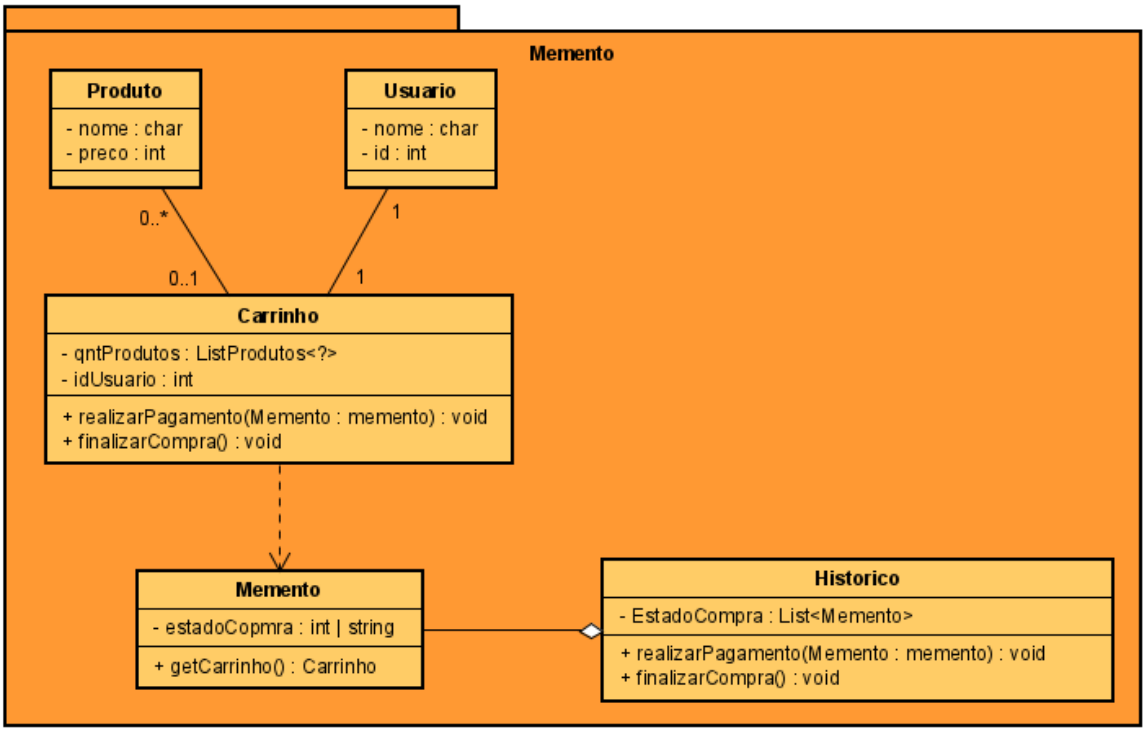


8. Proxy

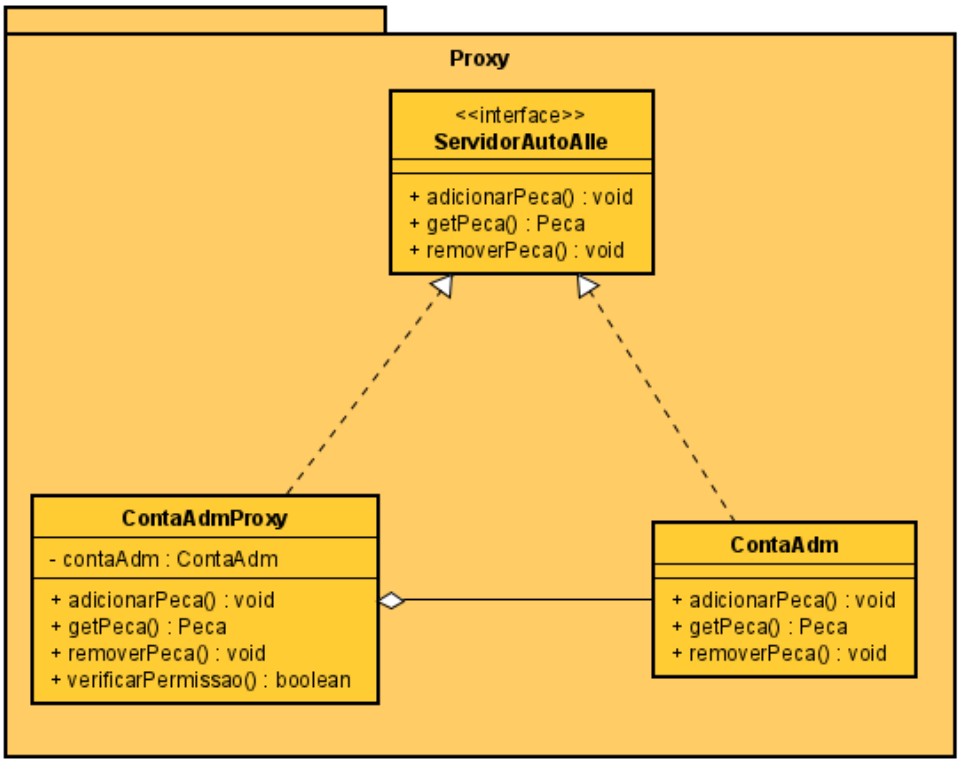


Design Patterns - AutoAlle

1. Memento



2.Proxy



Implementação

1. Observer

```java
import java.util.List;
import java.util.ArrayList;

public class AdManager {
    private List<User> users = new ArrayList<>();

    public void addUser(User user) {
        users.add(user);
    }

    public void removeUser(User user) {
        users.remove(user);
    }

    public void createAd() {
        System.out.println(x:"Anúncio criado");
        notifyUsers();
    }

    public void removeAd() {
        System.out.println(x:"Anúncio removido");
        notifyUsers();
    }

    private void notifyUsers() {
        for (User user : users) {
            user.update();
        }
    }

}
```

```java
public class ShowEmail implements User{

    @Override
    public void update() {
        System.out.println(x:"Propaganda enviada para o email");
    }

}
```

```java
public class ShowPopUp implements User {

    @Override
    public void update() {
        System.out.println(x:"Propaganda mostrada no pop-up");
    }

}
```

```java
public interface User {
    void update();
}
```

2. Facade

```java
public class Aluguel {

    private Pagamento pagamento;
    private Item item;

    public Aluguel(Pagamento pagamento, Item item) {
        this.pagamento = pagamento;
        this.item = item;
    }

    public void alugar() {
    System.out.println("Aluguel realizado com sucesso!");
    }

    public Pagamento getPagamento() {
        return pagamento;
    }
}
```

```java
public class Item {
    private String nome;
    private boolean disponivel;
    private double preco;

    public Item(String nome, boolean disponivel, double preco) {
        this.nome = nome;
        this.disponivel = disponivel;
        this.preco = preco;
    }

    public void search_item() {
        System.out.println(x:"Informações do Item:");
        System.out.println("Nome: " + nome);
        System.out.println("Disponível: " + (disponivel ? "Sim" : "Não"));
        System.out.println("Preço: " + preco);
    }

    public void update_item(boolean novaDisponibilidade) {
        this.disponivel = novaDisponibilidade;
    }



    public double getPreco() {
        return preco;
    }

    public void setPreco(double preco) {
        this.preco = preco;
    }
}
```

```java
public class Pagamento {
    private int valor;

    public boolean pagar() {
        if (valor > 0) {
            System.out.println("Pagamento de " + valor + " realizado com sucesso");
            return true;
        } else {
            System.out.println(x:"Falha no pagamento. Valor inválido.");
            return false;
        }

    }

    public void setValor(int valor) {
        this.valor = valor;
    }

}
```

```java
public class User {

    private String username;
    private int idUsuario;
    private Aluguel aluguel;

    public User(String username, int idUsuario) {
        this.username = username;
        this.idUsuario = idUsuario;
    }

    public String getUsername() {
        return username;
    }
    public void setUsername(String username) {
        this.username = username;
    }
    public int getIdUsuario() {
        return idUsuario;
    }
    public void setIdUsuario(int idUsuario) {
        this.idUsuario = idUsuario;
    }
    public Aluguel getAluguel() {
        return aluguel;
    }
    public void setAluguel(Aluguel aluguel) {
        this.aluguel = aluguel;
    }

}
```