

ASSIGNMENT

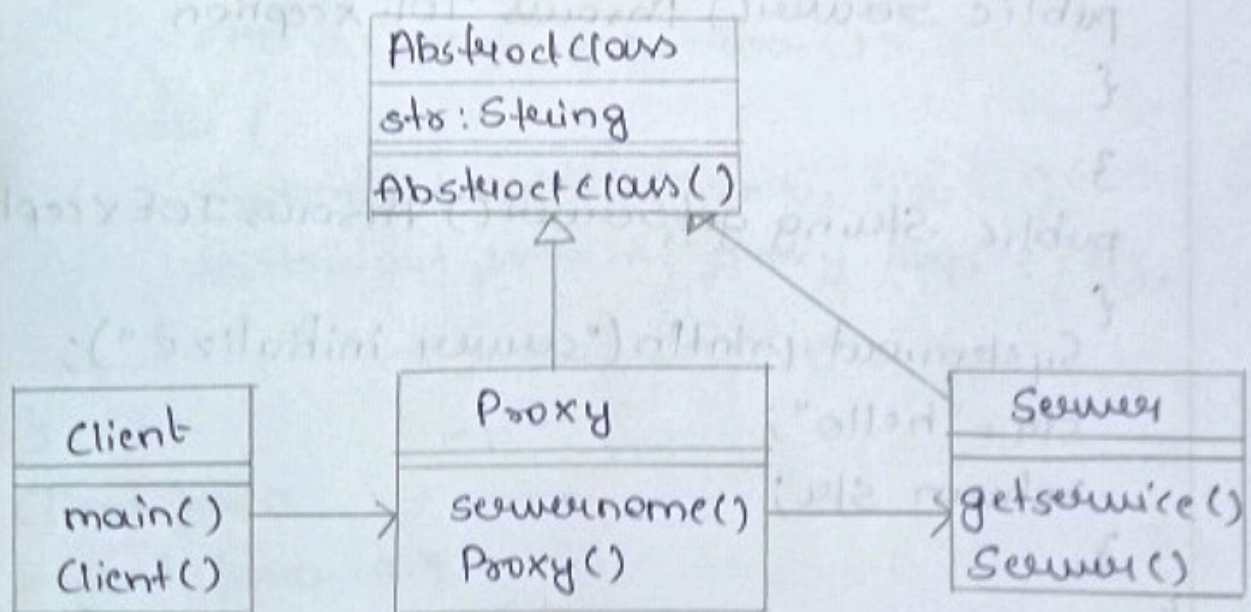
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- 3) Draw the Class model for Proxy pattern and write the Java code to implement the same.

Objective:-

The proxy pattern design makes client in compliment communication with representative, rather than component itself.

class Diagram:-



Java Code Implementation

AbstractClass.java

```
import java.io.*;
```

```
import java.lang.*;
```

```
public class AbstractClass
```

```
{
    public String str;
```

```
    public AbstractClass() throws IOException
```



```

    {
        str = " ";
    }
}

```

Sewer.java

```

import java.io.*;
import java.lang.*;
public class Sewer extends AbstractClass
{
    public Proxy theproxy;
    public Sewer() throws IOException
    {
    }
    public String getSewer() throws IOException
    {
        System.out.println("sewer initialize");
        str = "hello";
        return str;
    }
}

```

Proxy.java

```

import java.io.*;
import java.lang.*;
public class Proxy extends AbstractClass
{
    public Sewer theSewer;
    public AbstractClass theabclass;
    public Client theclient;
}

```



```
public Proxy() throws IOException
```

```
{
```

```
}
```

```
public void ServerName() throws IOException
```

```
{
```

```
System.out.println("\nProxy");
```

```
if (st4 == "")
```

```
{
```

```
System.out.println("\nTrying to get connected");
```

```
theserver = new Server();
```

```
st4 = theserver.getServer();
```

```
}
```

```
else {
```

```
System.out.println("proxy you...");
```

```
System.out.println("proxy says " + st4);
```

```
}
```

```
}
```

```
}
```

Client.java.

```
import java.io.*;
```

```
import java.lang.*;
```

```
public class Client
```

```
{
```

```
public Proxy theproxy;
```

```
public static void main(String args[]) throws
```

```
IOException
```

```
{
```

```
Proxy mproxy = new Proxy();
```

```
System.out.println("first time establishing  
connection\n");
```



```

        mproxy.SewerName();
        System.out.println("second time");
        mproxy.SewerName();
    }
}

```

Output:-

first time establishing Connection

Proxy

trying to get Connected

sewer initialize

second time

Proxy

Proxy you....

proxy says hello.

- 2) Assume that you are going to create a mobile app that will be used by all people in the society for buying items online within your town. Now you are supposed to conduct an ethnographic study, so prepare a questionnaire that includes all the question that you would like to ask with users. Also explain how you carry out Focused Ethnographic study.

Questionnaire:-

* Background Information:

- Name
- Age
- Occupation
- Income
- How long have you lived in this town?

* Online Shopping Habits

- Do you currently shop for items online?
- What type of items do you most frequently buy online?
- Which online platforms or apps do you use for shopping?
- What motivates you to shop online instead of in physical stores.

* Pain Points and Challenges

- What challenges have you faced while shopping online within this town?
- Any specific related issues to local delivery service?
- Any language or cultural barriers while using the existing apps for shopping?
- How do you typically pay for your online purchases?
- Any difficulties with payment method?

* Features

- What features would make your online shopping more convenient?
- Interested in local discounts, promotions & deals?

* Security and Trust.

→ What would increase your trust in a new shopping app?

→ Have you experienced issues with scams or fraud in online shopping within the town?

* Delivery and Returns.

→ How satisfied are you with delivery options available for online purchases?

→ Have you ever had to return a product purchased online? What was the experience like?

→ What improvements can be made to return process?

* Mobile App

→ How frequently do you use mobile apps for various purposes?

→ Are there any features in ^{existing} mobile app frustrating

* Feedback on Existing Apps

→ Do you currently use any local online shopping apps? Any improvements for existing apps.

* Preferred Communication Channels

→ How do you prefer to receive updates, deals and notification from a shopping app?

* Any additional comments or suggestions.

Carrying out the Focused Ethnographic Study.

* Participant Selection:-

Select a diverse group of potential end users who represent various demographics, including age, occupation and income.

* In-depth interviews

Conduct in-depth interviews with participants⁹ to dive deeper into their experiences, attitude and challenges related to online shopping with the town.

* Contextual Inquiry:

Visit their homes or workplaces to better understand their daily lives and how online shopping fits into their routines.

* Note-Taking & Documentation.

Take detailed notes, photos and recordings to capture insights and key findings during the study.

* Data Analysis

Analyse the collected data to identify common pain points preferences and needs of the participants.

* Iterative Feedback:

Use the findings to iteratively refine the app's design and features, ensuring it addresses the specific needs and challenges identified during the ethnographic study. continuously iterate until the app meets end-users needs effectively.