

MPL 3

November 23, 2021

1 Mini Project

2 Level –3–

2.1 –Esad Simsek –

2.2 –22/11/2021–

2.3 Version –1–

2.4 Summary of the Question

– Write a chat bot procedural program that can have realistic conversations with people about a specific topic –

2.5 The literate program development

– Delete all the comments in the markdown – – Alternate Markdown boxes and code boxes – – Add as many as needed – – markdown boxes should include a detailed explanation of the method following – – Add “testing” code boxes as needed to test each method

2.5.1 – Input_S –

What it does – This method allows the user to input a string to a reply for a question –

Implementation (how it works) – Prints the message and assigns an answer to the variable and then returns the variable–

```
[2]: public static String Input_S (String message)
    {
        String answer;
        Scanner scanner = new Scanner(System.in);
        System.out.println(message);
        answer = scanner.nextLine();
        return answer;
    }
```

Testing

```
[38]: Input_S("Is everything alright ?");
```

Is everything alright ?

yeah

[38]: yeah

2.5.2 – Input_i –

What it does – This method allows the user to input a integer to a reply for a question –

Implementation (how it works) – Prints the message and assigns an answer to the variable and then returns the variable –

```
[3]: public static int Input_i (String message)
    {
        int answer;
        Scanner scanner = new Scanner(System.in);
        System.out.println(message);
        answer = scanner.nextInt();
        return answer;
    }
```

Testing

```
[6]: Input_i(" What year were you born ?");
```

What year were you born ?

2003

[6]: 2003

2.5.3 – Chatbot_Interest –

What it does – prints the Chatbots interests –

Implementation (how it works) – Prints a string of characters –

```
[4]: public static void Chatbot_Interest()
    {
        System.out.println("I love to watch films and listen to muic.");
    }
```

Testing

```
[27]: Chatbot_Interest();
```

I love to watch films and listen to muic.

2.5.4 – Chatbot_filmtype –

What it does – Gives responses to certain types of films inserted by user –

Implementation (how it works) – If statement is used to give a response to types of films –

```
[5]: public static void Chatbot_filmtype (String film_type)
{
    if ( (film_type.equals("horror")) | (film_type.equals("Horror")) )
    {
        System.out.println("Horror is Scary!");
    }
    else if ( (film_type.equals("romance")) | (film_type.equals("Romance")) )
    {
        System.out.println("ROmance is boring");
    }
    else if ( (film_type.equals("superhero")) | (film_type.equals("Superhero")) )
    {
        System.out.println("Superhero films are the best");
    }
    else
    {
        System.out.println("I dont watch that type of film :(");
    }
}
```

Testing

```
[29]: Chatbot_filmtype("horror");
```

Horror is Scary!

2.5.5 – ChatBot –

What it does – the chatbot introduces itself asks some questions and after prints a bye message –

Implementation (how it works) – Prints a string of characters, calls a method to ask question and prints more characters afterwards. –

```
[6]: public static void ChatBot()
{
    System.out.println("Hello I am a Chatbot.");
    Input_S("How are you?");
    Chatbot_Interest();
    String interest = Input_S("What do you like?");
    System.out.println("So you like " + interest + "?");
    System.out.println("Let's talk about films");
}
```

```
String Favourite_film = Input_S("What's your favourite film type?");  
Chatbot_filmtype(Favourite_film);  
System.out.println("Ok, time to go now. Bye!");  
}
```

Testing

```
[7]: ChatBot();
```

Hello I am a Chatbot.

How are you?

I am fine

I love to watch films and listen to music.

What do you like?

superhero

So you like superhero?

Let's talk about films

What's your favourite film type?

romance

Romance is boring

Ok, time to go now. Bye!

2.5.6 Running the program

Run the following call to simulate running the complete program.

```
[45]: ChatBot();
```

Hello I am a Chatbot.

How are you?

bad

I love to watch films and listen to music.

What do you like?

cars

So you like cars?

Let's talk about films

What's your favourite film type?

horror

Horror is Scary!

Ok, time to go now. Bye!

2.6 The complete program

This version will only compile here. To run it copy it into a file called `initials.java` on your local computer and compile and run it there.

```
[34]: // Esad Simsek
      // 22/11/2021
      // VERSION 1
      // Write a chat bot program that can have realistic conversations with people
      // → about a specific topic

import java.util.Scanner; // Needed to make Scanner available

class CHATBOT // change the name to something appropriate
{
    public static void main (String [] a)
    {
        method_call(); //Change this to a call to the method doing the work
        System.exit(0);
    }

    public static String Input_S (String message)
    {
        String answer;
        Scanner scanner = new Scanner(System.in);
        System.out.println(message);
        answer = scanner.nextLine();
        return answer;
    }

    public static int Input_i (String message)
    {
        int answer;
        Scanner scanner = new Scanner(System.in);
        System.out.println(message);
        answer = scanner.nextInt();
        return answer;
    }

    public static void Chatbot_Interest()
    {
        System.out.println("I love to watch films and listen to music.");
    }

    public static void Chatbot_filmtyp (String film_type)
    {
        if ( (film_type.equals("horror")) | (film_type.equals("Horror")) )
```

```

    {
        System.out.println("Horror is Scary!");
    }
    else if ( (film_type.equals("romance")) | (film_type.equals("Romance")) )
    {
        System.out.println("ROmance is boring");
    }
    else if ( (film_type.equals("superhero")) | (film_type.equals("Superhero")) )
    {
        System.out.println("Superhero films are the best");
    }
    else
    {
        System.out.println("I dont watch that type of film :(");
    }
}

public static void ChatBot()
{
    System.out.println("Hello I am a Chatbot.");
    Input_S("How are you?");
    Chatbot_Interest();
    String interest = Input_S("What do you like?");
    System.out.println("So you like " + interest + "?");
    System.out.println("Let's talk about films");
    String Favourite_film = Input_S("What's your favourite film type?");
    Chatbot_filmtpe(Favourite_film);
    System.out.println("Ok, time to go now. Bye!");
}
}

```

END OF LITERATE DOCUMENT