Version 3.0

This version is implemented a simple chatbot, using Scanner methods and make use of the other Classes. This Chatbot can say and identify some patterns for greetings and when the user wants to user the Weather Resource.

It is only a simple chatbot, that cannot resolve any grammar issue. The Chatbot have a HashMap in order to store some patterns with key words, have a train method that allow the user to train the Bot for reply. The Chatbot when triggered by the word "Weather" can call the WeatherRequest Method that will let the API know the weather and then inform the user.

Screenshot 1.0 – AvengerBot

```java
1  package avenger.weather.chatbot;
2
3  import java.util.*;
8
9  public class AvengerBot {
10     HashMap<String, String> knowledge = new HashMap<String, String>();
11
12  //  Default Constructor
13     public AvengerBot() {
14         knowledge.put("Hi", "Hello... Please to meet you!");
15         knowledge.put("Hello", "Hi yo");
16         knowledge.put("how are you?", "Great! And you?");
17         knowledge.put("what time is it", "Look at your watch!");
18     }
19
20     public void answer(Scanner sc, String question) {
21         Set<String> keys = knowledge.keySet();
22         String lowerQuestion = question.toLowerCase();
23         for (String key : keys){
24             String lowerKey = key.toLowerCase();
25             if (lowerKey.contains(lowerQuestion)) {
26                 System.out.println("Avenger: " + knowledge.get(key));
27                 return;//break
28             }
29         } if(lowerQuestion.contains("weather")) {
30             System.out.println("Avenger: Do you really wanna know the weather ?");
31             lowerQuestion = userInput(sc).toLowerCase();
32
33             if(lowerQuestion.contains("yes")) {
34                 AvengerWeatherRequest();
35             } else {
36                 System.out.println("Avenger: Oh ok =(");
37             }
38             return;
39         }
40
41         trainMe(question);
42     }
```

Screenshot 1.0 – AvengerBot

```java
    public void trainMe(String question) {
        System.out.println("Avenger: Sorry, Im dumb! How should I reply");
        System.out.print("You: ");
        Scanner sc = new Scanner(System.in);
        String userInput = sc.nextLine();
        knowledge.put(question, userInput);
    }

    public String userInput(Scanner sc) {
        System.out.print("You: ");
        String userInput = sc.nextLine();
        return userInput;
    }

    public boolean AvengerWeatherRequest() {
        Request2 req = new Request2();
        Weather weatherInfo = null;

        weatherInfo = req.weatherRequest();

        if(weatherInfo == null) {
            System.out.println("Sorry we are unable to locate help you right now!");
            return false;
        } else {
            System.out.println("Avenger: I got the weather information in " + weatherInfo.getLocation().getCity() + ", "
                            + weatherInfo.getLocation().getCountry() + " for you!");
            System.out.println("The current Temperature is " + weatherInfo.getTemp()
                            + "Celsius, However feels like " + weatherInfo.getFeelsLike() + "Celsius.");
            System.out.println("The max will be " + weatherInfo.getMax() + "Celsius, and the minimun will be " + weatherInfo.getMin());
        }
        return true;
    }
}
```
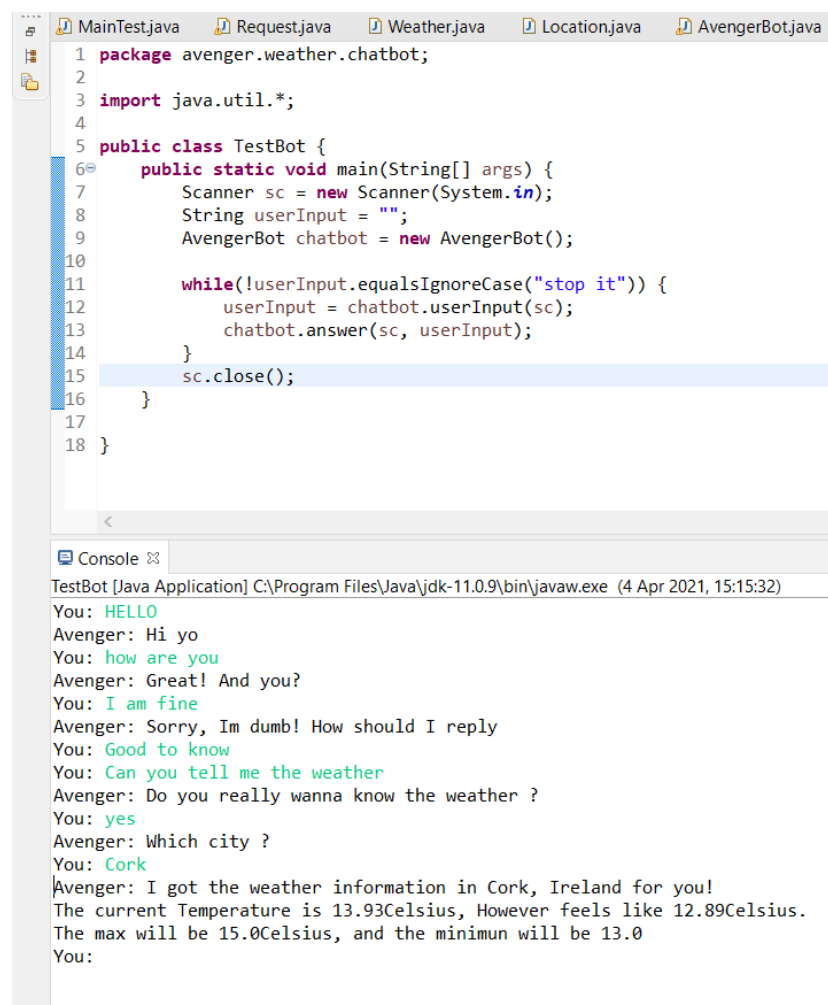
Screenshot – Chatbot Interaction

```java
MainTest.java   Request.java   Weather.java   Location.java   AvengerBot.java
 1  package avenger.weather.chatbot;
 2
 3  import java.util.*;
 4
 5  public class TestBot {
 6      public static void main(String[] args) {
 7          Scanner sc = new Scanner(System.in);
 8          String userInput = "";
 9          AvengerBot chatbot = new AvengerBot();
10
11          while(!userInput.equalsIgnoreCase("stop it")) {
12              userInput = chatbot.userInput(sc);
13              chatbot.answer(sc, userInput);
14          }
15          sc.close();
16      }
17
18  }
```

```
Console ⊠
TestBot [Java Application] C:\Program Files\Java\jdk-11.0.9\bin\javaw.exe  (4 Apr 2021, 15:15:32)
You: HELLO
Avenger: Hi yo
You: how are you
Avenger: Great! And you?
You: I am fine
Avenger: Sorry, Im dumb! How should I reply
You: Good to know
You: Can you tell me the weather
Avenger: Do you really wanna know the weather ?
You: yes
Avenger: Which city ?
You: Cork
Avenger: I got the weather information in Cork, Ireland for you!
The current Temperature is 13.93Celsius, However feels like 12.89Celsius.
The max will be 15.0Celsius, and the minimun will be 13.0
You:
```