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Annexure I

Micro Project Proposal

JAVA PROGRAM BOT

1. Aims/Benefits of the Micro-Project:

- Applying the basic knowledge of Java for building project.
- Simple and interesting project that will help us in education.
- Chatting using CMD ,an interesting fact.

2. Course Outcome Addressed:

- CO-1: implement Exception Handling.
- CO-2: Develop programs using object oriented methodology in java.
- CO-3:develop programs using multithreading.

3. Proposed Methodology:

Java is simple and efficient language for application building and projects. This project is build on applying basic knowledge of java that has been earned through this course or subject. Use of classes, exception handling, string and thread method are applied for this project.

4. Action Plan:

Sr. No.	Details of Activity	Planned Start date	Planned Finish date	Name of Responsible Team Members
1	Search the information of Topic	10-02-2023 2:00 – 3:00 PM	11-02-2023 2:00 – 3:00 PM	Kunal Nitin Nalwade
2	Collecting information	17-02-2023 2:00 – 3:00 PM	03-03-2023 2:00 – 3:00 PM	Akshay Dashrath Gitte
3	Analysis of data	04-03-2023 2:00 – 3:00 PM	10-03-2023 2:00 – 3:00 PM	Harsh Moreshwar kale
4	Creating format of project	11-03-2023 2:00 – 3:00 PM	17-03-2023 2:00 – 3:00 PM	Kunal Nitin Nalwade
5	Program writing and execution	18-03-2023 2:00 – 3:00 PM	25-03-2023 2:00 – 3:00 PM	Harsh Moreshwar kale
6	Detailing the project	31-03-2023 2:00 – 3:00 PM	01-04-2023 2:00 – 3:00 PM	Akshay Dashrath Gitte
7	Overview of the project	07-04-2023 2:00 – 3:00 PM	08-04-2023 2:00 – 3:00 PM	Akshay Dashrath Gitte
8	Final report of project	15-04-2023 2:00 – 3:00 PM	21-04-2023 2:00 – 3:00 PM	Kunal Nitin Nalwade

5. Resources Required:

Sr. No.	Name of resource / material	Specification	Quantity	Remarks
1	Computer	WINDOWS 11,8GB RAM	1	
2	Operating System	WINDOWS 11	1	
3	Browser	Google Chrome	1	
4	software	Intellij	1	

6. Names of Team Members with Roll No.'s:

Sr. No.	Enrollment No.	Name of Team Member	Roll No.
1	2110950049	Akshay Dashrath Gitte	01
2	2110950051	Harsh Moreshwar Kale	03
3	2110950099	Kunal Nitin Nalwade	49

Mr. Sugare D.D.

Name and Signature of the Teacher

Annexure – II

Micro Project Report

JAVA PROGRAM BOT

1. Rationale:

Java is simple and efficient language for application building and projects. This project is built on applying basic knowledge of java that has been earned through this course or subject.

2. Aims/Benefits of the Micro-Project:

- Applying the basic knowledge of Java for building project.
- Simple and interesting project that will help us in education.
- Chatting using CMD, an interesting fact.

3. Course Outcomes Achieved:

- CO-1: implement Exception Handling.
- CO-2: Develop programs using object oriented methodology in java.
- CO-3: develop programs using multithreading.

4. Literature Review:

Java programming bot is a program written to save time by giving a simple command to the program by the user.
Its designed class like `ProgramSet` is holds the all progams needed to the end user. Java programming bot uses the object oriented programming of the java and types the program very fast.

5. Actual Methodology followed

Source Code:

```
import java.io.IOException;
import java.util.Random;
import java.util.Scanner;
import java.net.ServerSocket;

2 usages
class ProgramSet extends Thread{
    1 usage
    public void AdditionProgram() throws InterruptedException {
        String text = "import java.util.Scanner;\n" +
                "\n" +
                "public class Program{\n" +
                " public static void main(String[] args){\n" +
                "  Scanner in = new Scanner(System.in);\n" +
                "  System.out.println(\"Enter the First Number: \");\n" +
                "  int a = in.nextInt();\n" +
                "\n" +
                "  System.out.println(\"Enter the Second Number: \");\n" +
                "  int b = in.nextInt();\n" +
                "  \n" +
                "  System.out.println(\"The Additon is \" + (a+b));\n" +
                " }\n" +
                "}";
        for (int i=0; i<text.length(); i++){
            System.out.print(text.charAt(i));
            Thread.sleep( millis: 10);
        }
    }

    1 usage
    public void SubstractionProgram() throws InterruptedException{
        String text = "import java.util.Scanner;\n" +
                "\n" +
                "public static Program{\n" +
                " public static void main(String[] args){\n" +
                "  Scanner in = new Scanner(System.in);\n" +
                "  System.out.println(\"Enter the First Number: \");\n" +
                "  int a = in.nextInt();\n" +
                "  \n" +
                "  System.out.println(\"Enter the Second Number: \");\n" +
                "  int b = in.nextInt();\n" +
                "\n" +
                "  System.out.println(\"The Substraction is \" + (a-b));\n" +
                " }\n" +
                "}";
        for (int i=0; i<text.length(); i++){
            System.out.print(text.charAt(i));
            Thread.sleep( millis: 10);
        }
    }

    1 usage
    public void MultiplicationProgram() throws InterruptedException{
        String text = "import java.util.Scanner;\n" +
                "\n" +
                "public static Program{\n" +
                " public static void main(String[] args){\n" +
                "  Scanner in = new Scanner(System.in);\n" +
```

```
                "public static Program{\n" +
                " public static void main(String[] args){\n" +
                "  Scanner in = new Scanner(System.in);\n" +
                "  System.out.println(\"Enter the First Number: \");\n" +
                "  int a = in.nextInt();\n" +
                "  \n" +
                "  System.out.println(\"Enter the Second Number: \");\n" +
                "  int b = in.nextInt();\n" +
                "\n" +
                "  System.out.println(\"The Division is \" + (a/b));\n" +
                " }\n" +
                "}";
        for(int i=0; i<text.length(); i++){
            System.out.print(text.charAt(i));
            Thread.sleep( millis: 10);
        }
    }

    public void FabinocciSerriesProgram() throws InterruptedException{
        String text = "import java.util.Scanner;\n" +
                "\n" +
                "public class Program{\n" +
                " public static void main(String[] args){\n" +
                "  Scanner in = new Scanner(System.in);\n" +
                "  \n" +
                "  System.out.println(\"Enter the Number: \");\n" +
                "  int n = in.nextInt();\n" +
                "  \n" +
                "  int f1, f2=0, f3=1;\n" +
                "  for(int i=0; i<num; i++){\n" +
                "   System.out.println(\" \"+f3+\" \");\n" +
                "   f1=f2;\n" +
                "   f2=f3;\n" +
                "   f3=f1+f2;\n" +
                "  }\n" +
                " }\n" +
                "}";
        for(int i=0; i<text.length(); i++){
            System.out.print(text.charAt(i));
            Thread.sleep( millis: 10);
        }
    }

    public void changeSourceCode() throws InterruptedException{
        String text = "import java.util.Scanner;\n" +
                "import java.util.Random;\n" +
                "\n" +
                "class Robot extends Thread{\n" +
                "    public void startChating() throws InterruptedException{\n" +
                "        Scanner in = new Scanner(System.in);\n" +
                "        String userInput = in.nextLine();\n" +
                "        ProgramSet p = new ProgramSet();\n" +
                "        if (userInput.contains(\"Addition Program\")){\n" +
                "            p.AdditionProgram();\n" +
                "        }\n" +
                "        else if(userInput.contains(\"Substraction Program\")){\n" +
                "            p.SubstractionProgram();\n" +
                "        }\n" +
```

```
"        else if(userInput.contains(\"Multiplication Program\")){\n" +
"            p.MultiplicationProgram();\n" +
"        }\n" +
"        else if(userInput.contains(\"Division Program\")){\n" +
"            p.DivisionProgram();\n" +
"        }else if(userInput.contains(\"Fabinocci Series Program\")){\n" +
"            p.FabinocciSerriesProgram();\n" +
"        }\n" +
"        else{\n" +
"            String computerResponse[] = {\n" +
"                    \"I don't Know Master!!\",\n" +
"                    \"\uD83D\uDE14\uD83D\uDE14\uD83D\uDE14\",\n" +
"                    \"I don't know about \"+userInput,\n" +
"                    \"Does not understandable!!\\nDo it mannually!\",\n" +
"                    \"Give me Some Other Task\",\n" +
"                    \"I con't Do this!!\uD83D\uDE2D\",\n" +
"                    \"I am a open source bot please change my source code to run as per your wish\"\n" +
"            };\n" +
"            int limit = computerResponse.length;\n" +
"            Random randomNumber = new Random();\n" +
"            int n = randomNumber.nextInt(limit);\n" +
"            System.out.println(computerResponse[n]);\n" +
"        }\n" +
"    }\n" +
"}\n" +
"class ProgramSet extends Thread{\n" +
"\n" +
"    public void AdditionProgram() throws InterruptedException {\n" +
"        String text = \"import java.util.Scanner;\\n\" +\n" +
"                \"\\n\" +\n" +
"                \"public class Program{\\n\" +\n" +
"                \" public static void main(String[] args){\\n\" +\n" +
"                \"  Scanner in = new Scanner(System.in);\\n\" +\n" +
"                \"  System.out.println(\\\"Enter the First Number: \\\");\\n\" +\n" +
"                \"  int a = in.nextInt();\\n\" +\n" +
"                \"\\n\" +\n" +
"                \"  System.out.println(\\\"Enter the Second Number: \\\");\\n\" +\n" +
"                \"  int b = in.nextInt();\\n\" +\n" +
"                \"  \\n\" +\n" +
"                \"  System.out.println(\\\"The Additon is \\\" + (a+b));\\n\" +\n" +
"                \" }\\n\" +\n" +
"                \"}\";\n" +
```

```
class RoboSpeaks{
    1 usage
    public void answer() throws InterruptedException {
        String text = "Computer get cold..\n"+
                "because Window is open!🤣🤣😅\n";
        for(int i=0; i<text.length(); i++){
            System.out.print(text.charAt(i));
            Thread.sleep( millis: 10);
        }

    }
    public int say(int num) throws InterruptedException{
        if(num == 1){
            answer();
        }
        return 0;
    }
}

4 usages  1 inheritor
class Robot extends Thread{
```

```java
public void startChating() throws InterruptedException{
    Scanner in = new Scanner(System.in);
    String userInput = in.nextLine();
    ProgramSet p = new ProgramSet();
    String word = "";
    userInput += " ";
    int count = 0;
    for(int i=0; i<userInput.length(); i++){
        char ch = userInput.charAt(i);
        if (ch != ' ') {
            word += ch;
        }
        else{
            if (word.equalsIgnoreCase( anotherString: "a")||
                        word.equalsIgnoreCase( anotherString: "program")||
                    word.equalsIgnoreCase( anotherString: "two")||
                    word.equalsIgnoreCase( anotherString: "number")||
                    word.equalsIgnoreCase( anotherString: "numbers")||
                    word.equalsIgnoreCase( anotherString: "design")||word.equalsIgnoreCase( anotherString: "division")||
                            word.equalsIgnoreCase( anotherString: "Write")){
                word="";
                count=1;
            }
          else if (word.equalsIgnoreCase( anotherString: "substraction")||word.equalsIgnoreCase( anotherString: "sub")||word.equalsIgnoreCase( anotherString: "difference")){
                word="";
                count=2;
          }
         else if (word.equalsIgnoreCase( anotherString: "Addition")||word.equalsIgnoreCase( anotherString: "add")||word.equalsIgnoreCase( anotherString: "sum")||word.equalsIgnoreCase( anotherString: "adds")){
            word="";
            count=3;
          }else if (
                word.equalsIgnoreCase( anotherString: "multiplication")||word.equalsIgnoreCase( anotherString: "multiply")||word.equalsIgnoreCase( anotherString: "product")){
            word="";
            count=4;
          }else if (word.equalsIgnoreCase( anotherString: "fabinocci")){
            word="";
            count=5;
          }
          word="";
        }
    }
    if (count==1){
        p.DivisionProgram();
    }
    else if (count==2){
        p.SubstractionProgram();
    }
    else if (count==3){

        p.AdditionProgram();
    }
    else if (count==4){
        p.MultiplicationProgram();
    }
    else if (count==5){
        p.FabinocciSerriesProgram();
    }
    else{
            RoboSpeaks rs = new RoboSpeaks();
            String computerResponse[] = new String[]{
                    "I don't Know Master!!",
                    "😔😔😔",
                    "I don't know about " + userInput,
                    "Does not understandable!!\nDo it mannually!",
                    "Give me Some Other Task",
                    "I con't Do this!!😭",
                    "I am a open source bot please change my source code to run as per your wish",
                    "404",
                    "Searching on Google for " + "`" + userInput + "`",
                    // "Can I say you a Joke: (press 1/0)"+(rs.say(1)),
                    "Can I say you a Joke: ",
                    "Idk"
            };
            int limit = computerResponse.length;
            Random randomNumber = new Random();
            int n = randomNumber.nextInt(limit);
            System.out.println(computerResponse[n]);
        }
    }
}

class CheckforWord extends Robot{
    1 usage
    Scanner i = new Scanner(System.in);
    public void chechForword(){
        String str = i.nextLine();
        String word = "";
        str = str + " ";
        int count = 0;
```

```
            char ch = str.charAt(i);
            if(ch!=' '){
                word = word + ch;
            }else{
                count++;
                word="";
            }
        }
        if(count==0){
            System.out.println("word not present!!");
        }
        else{
            System.out.println("Word is present");
        }
    }

}


1 usage
public class Bot{
    public static void main(String[] x) throws InterruptedException {
        System.out.println("Java Bot v0.1.1");
        System.out.print("Please Enter Your Name: ");
        Scanner in = new Scanner(System.in);
        String userName = in.nextLine();
         final String TEXT_PURPLE = "\u001B[35m";
         final String TEXT_CYAN = "\u001B[36m";
         final String TEXT_YELLOW = "\u001B[33m";
        System.out.print(TEXT_PURPLE + "hello ");
        System.out.print(TEXT_CYAN+ userName);
            System.out.println(TEXT_YELLOW+  " to Java Bot v0.1.1");
            Robot robo = new Robot();
            int c = 0;
            while(1<2){
                robo.startChating();
                System.out.println();
                c++;
            }
    }
}
```

6. Actual Resources Used:

Sr. No.	Name of resource /material	Specification	Quantity	Remarks
1	Computer	WINDOWS 11,8 GB RAM	1	
2	Operating System	WINDOWS 11	1	
3	Browser	Google Chrome	1	
4	software	Intellij	1	

7. Outputs of Micro-Projects:

```
"D:\All Softwares\bin\java.exe" "-javaagent:D:\All Softwares\New folder\lib\idea_rt.jar=58641:D:\All Softwares\New folder\bin" -Dfile.encoding=UTF-8
 -Dsun.stdout.encoding=UTF-8 -Dsun.stderr.encoding=UTF-8 -classpath "D:\MyPrograms\aajchaabhyass.com\Java Programming
 Language\JavaProgramBot\out\production\JavaProgramBot" Bot
Java Bot v0.1.1🔥
Please Enter Your Name: Harsh
hello Harsh to Java Bot v0.1.1
write a program for me of addition
import java.util.Scanner;

public class Program{
 public static void main(String[] args){
  Scanner in = new Scanner(System.in);
  System.out.println("Enter the First Number: ");
  int a = in.nextInt();

  System.out.println("Enter the Second Number: ");
  int b = in.nextInt();

  System.out.println("The Additon is " + (a+b));
 }
}
```

8. Skill developed / Learning out of this Micro-Project:

- Some more knowledge of Java programing is added.
- Learn to apply knowledge practically.
- Successfully applied basics of java.

9. Applications of this Micro-Project:

- Useful for students in their education.
- Chatting with friends in local network, on CMD an interesting fact.