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**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 Moreswar 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 Moreswar 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:**

<b>Sr. No.</b>	<b>Enrollment No.</b>	<b>Name of Team Member</b>	<b>Roll No.</b>
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 programs 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:

```
1 import java.io.IOException;
2 import java.util.Random;
3 import java.util.Scanner;
4 import java.net.ServerSocket;
5
6 2 usages
7 class ProgramSet extends Thread{
8     1 usage
9     public void AdditionProgram() throws InterruptedException {
10         String text = "import java.util.Scanner;\n" +
11             "\n" +
12             "public class Program{\n" +
13             " public static void main(String[] args){\n" +
14             " Scanner in = new Scanner(System.in);\n" +
15             " System.out.println(\"Enter the First Number: \");\n" +
16             " int a = in.nextInt();\n" +
17             "\n" +
18             " System.out.println(\"Enter the Second Number: \");\n" +
19             " int b = in.nextInt();\n" +
20             "\n" +
21             " \n" +
22             " System.out.println(\"The Additon is \" + (a+b));\n" +
23             " }\n" +
24             "}";
25         for (int i=0; i<text.length(); i++){
26             System.out.print(text.charAt(i));
27             Thread.sleep( millis: 10);
28         }
29     }
30
31     1 usage
32     public void SubstractionProgram() throws InterruptedException{
33         String text = "import java.util.Scanner;\n" +
34             "\n" +
35             "public static Program{\n" +
36             " public static void main(String[] args){\n" +
37             " Scanner in = new Scanner(System.in);\n" +
38             " System.out.println(\"Enter the First Number: \");\n" +
39             " int a = in.nextInt();\n" +
40             "\n" +
41             " System.out.println(\"Enter the Second Number: \");\n" +
42             " int b = in.nextInt();\n" +
43             "\n" +
44             " System.out.println(\"The Substraction is \" + (a-b));\n" +
45             " }\n" +
46             "}";
47         for (int i=0; i<text.length(); i++){
48             System.out.print(text.charAt(i));
49             Thread.sleep( millis: 10);
50         }
51     }
52
53     1 usage
54     public void MultiplicationProgram() throws InterruptedException{
55         String text = "import java.util.Scanner;\n" +
56             "\n" +
57             "public static Program{\n" +
58             " public static void main(String[] args){\n" +
59             " Scanner in = new Scanner(System.in);\n" +
60             "\n" +
61             " System.out.println(\"Enter the First Number: \");\n" +
62             " int a = in.nextInt();\n" +
63             "\n" +
64             " System.out.println(\"Enter the Second Number: \");\n" +
65             " int b = in.nextInt();\n" +
66             "\n" +
67             " System.out.println(\"The Multiplication is \" + (a*b));\n" +
68             " }\n" +
69             "}";
70         for (int i=0; i<text.length(); i++){
71             System.out.print(text.charAt(i));
72             Thread.sleep( millis: 10);
73         }
74     }
75 }
```

```

73         "public static Program{\n" +
74         " public static void main(String[] args){\n" +
75         " Scanner in = new Scanner(System.in);\n" +
76         " System.out.println(\"Enter the First Number: \");\n" +
77         " int a = in.nextInt();\n" +
78         " \n" +
79         " System.out.println(\"Enter the Second Number: \");\n" +
80         " int b = in.nextInt();\n" +
81         " \n" +
82         " System.out.println(\"The Division is \" + (a/b));\n" +
83         " }\n" +
84         "}";
85     for(int i=0; i<text.length(); i++){
86         System.out.print(text.charAt(i));
87         Thread.sleep( millis: 10);
88     }
89 }
90

```

```

91 public void FabinocciSerriesProgram() throws InterruptedException{
92     String text = "import java.util.Scanner;\n" +
93     "\n" +
94     "public class Program{\n" +
95     " public static void main(String[] args){\n" +
96     " Scanner in = new Scanner(System.in);\n" +
97     " \n" +
98     " System.out.println(\"Enter the Number: \");\n" +
99     " int n = in.nextInt();\n" +
100     " \n" +
101     " int f1, f2=0, f3=1;\n" +
102     " for(int i=0; i<num; i++){ \n" +
103     " System.out.println(\" \" +f3+\" \");\n" +
104     " f1=f2;\n" +
105     " f2=f3;\n" +
106     " f3=f1+f2;\n" +
107     " }\n" +
108     " }\n" +
109     "}";
110     for(int i=0; i<text.length(); i++){
111         System.out.print(text.charAt(i));
112         Thread.sleep( millis: 10);
113     }
114 }
115
116 public void changeSourceCode() throws InterruptedException{
117     String text = "import java.util.Scanner;\n" +
118     "import java.util.Random;\n" +
119     "\n" +
120     "class Robot extends Thread{\n" +
121     " public void startChating() throws InterruptedException{\n" +
122     " Scanner in = new Scanner(System.in);\n" +
123     " String userInput = in.nextLine();\n" +
124     " ProgramSet p = new ProgramSet();\n" +
125     " if (userInput.contains(\"Addition Program\")){\n" +
126     " p.AdditionProgram();\n" +
127     " }\n" +
128     " else if(userInput.contains(\"Substraction Program\")){\n" +
129     " p.SubstractionProgram();\n" +
130     " }\n" +

```

```

131         "         else if(userInput.contains(\"Multiplication Program\")){\n\" +
132         "         p.MultiplicationProgram();\n\" +
133         "         }\n\" +
134         "         else if(userInput.contains(\"Division Program\")){\n\" +
135         "         p.DivisionProgram();\n\" +
136         "         }else if(userInput.contains(\"Fabinocci Series Program\")){\n\" +
137         "         p.FabinocciSerriesProgram();\n\" +
138         "         }\n\" +
139         "         else{\n\" +
140         "         String computerResponse[] = {\n\" +
141         "         \"\n\"I don't Know Master!!\", \n\" +
142         "         \"\n\"u083D\u0DE14\u0D83D\u0DE14\u0D83D\u0DE14\", \n\" +
143         "         \"\n\"I don't know about \" +userInput, \n\" +
144         "         \"\n\"Does not understandable!!\nDo it mannually!\", \n\" +
145         "         \"\n\"Give me Some Other Task\", \n\" +
146         "         \"\n\"I con't Do this!!\u083D\u0DE2D\", \n\" +
147         "         \"\n\"I am a open source bot please change my source code to run as per your wish\"\n\" +
148         "         };\n\" +
149         "         int limit = computerResponse.length;\n\" +
150         "         Random randomNumber = new Random();\n\" +
151         "         int n = randomNumber.nextInt(limit);\n\" +
152         "         System.out.println(computerResponse[n]);\n\" +
153         "         }\n\" +
154         "         }\n\" +
155         "         }\n\" +
156         "         \"\n\" +
157         "         \"\n\" +
158         "         public void AdditionProgram() throws InterruptedException {\n\" +
159         "         String text = \"import java.util.Scanner;\n\" + \n\" +
160         "         \"\n\" +
161         "         \"\n\" +
162         "         \"\n\" +
163         "         \"\n\" +
164         "         \"\n\" +
165         "         \"\n\" +
166         "         \"\n\" +
167         "         \"\n\" +
168         "         \"\n\" +
169         "         \"\n\" +
170         "         \"\n\" +
171         "         \"\n\" +
172         "         \"\n\" +

```

```

286 class RoboSpeaks{
    1 usage
287 public void answer() throws InterruptedException {
288     String text = "Computer get cold..\n"+
289     "because Window is open!😭😭😭\n";
290     for(int i=0; i<text.length(); i++){
291         System.out.print(text.charAt(i));
292         Thread.sleep( millis: 10);
293     }
294 }
295 }
296 public int say(int num) throws InterruptedException{
297     if(num == 1){
298         answer();
299     }
300     return 0;
301 }
302 }
303 }

```

4 usages 1 inheritor

```
304 class Robot extends Thread{
```



```

305 public void startChatting() throws InterruptedException{
306     Scanner in = new Scanner(System.in);
307     String userInput = in.nextLine();
308     ProgramSet p = new ProgramSet();
309     String word = "";
310     userInput += " ";
311     int count = 0;
312     for(int i=0; i<userInput.length(); i++){
313         char ch = userInput.charAt(i);
314         if (ch != ' '){
315             word += ch;
316         }
317         else{
318             if (word.equalsIgnoreCase( anotherString: "a")||
319                 word.equalsIgnoreCase( anotherString: "program")||
320                 word.equalsIgnoreCase( anotherString: "two")||
321                 word.equalsIgnoreCase( anotherString: "number")||
322                 word.equalsIgnoreCase( anotherString: "numbers")||
323                 word.equalsIgnoreCase( anotherString: "design")||word.equalsIgnoreCase( anotherString: "division")||
324                 word.equalsIgnoreCase( anotherString: "Write")){
325                 word="";
326                 count=1;
327             }
328             else if (word.equalsIgnoreCase( anotherString: "subtraction")||word.equalsIgnoreCase( anotherString: "sub")||word.equalsIgnoreCase( anotherString: "difference")){
329                 word="";
330                 count=2;
331             }
332             else if (word.equalsIgnoreCase( anotherString: "Addition")||word.equalsIgnoreCase( anotherString: "add")||word.equalsIgnoreCase( anotherString: "sum")||word.equalsIgnoreCase( anotherString: "adds")){
333                 word="";
334                 count=3;
335             }
336             else if (
337                 word.equalsIgnoreCase( anotherString: "multiplication")||word.equalsIgnoreCase( anotherString: "multiply")||word.equalsIgnoreCase( anotherString: "product")){
338                 word="";
339                 count=4;
340             }
341             else if (word.equalsIgnoreCase( anotherString: "Fabinocci")){
342                 word="";
343                 count=5;
344             }
345             word="";
346         }
347         if (count==1){
348             p.DivisionProgram();
349         }
350         else if (count==2){
351             p.SubtractionProgram();
352         }
353         else if (count==3){
354             p.AdditionProgram();
355         }
356         else if (count==4){
357             p.MultiplicationProgram();
358         }
359         else if (count==5){
360             p.FabinocciSeriesProgram();
361         }
362         else{
363             RoboSays rs = new RoboSays();
364             String computerResponse[] = new String[]{
365                 "I don't Know Master!!",
366                 "😞😞😞",
367                 "I don't know about " + userInput,
368                 "Does not understandable!!\nDo it manually!",
369                 "Give me Some Other Task",
370                 "I can't Do this!!😞",
371                 "I am a open source bot please change my source code to run as per your wish",
372                 "404",
373                 "Searching on Google for " + "" + userInput + "",
374                 // "Can I say you a Joke: (press 1/0)" + (rs.say(1)),
375                 "Can I say you a Joke: ",
376                 "Idk"
377             };
378             int limit = computerResponse.length;
379             Random randomNumber = new Random();
380             int n = randomNumber.nextInt(limit);
381             System.out.println(computerResponse[n]);
382         }
383     }
384 }
385
386 class CheckForWord extends Robot{
387     // usage
388     Scanner i = new Scanner(System.in);
389     public void checkForword(){
390         String str = i.nextLine();
391         String word = "";
392         str = str + " ";
393         int count = 0;

```

```

394     char ch = str.charAt(i);
395     if(ch!=' '){
396         word = word + ch;
397     }else{
398         count++;
399         word="";
400     }
401 }
402 if(count==0){
403     System.out.println("word not present!!");
404 }
405 else{
406     System.out.println("Word is present");
407 }
408 }
409 }
410 }
411 }
412 }
413 }
414
415 1 usage
416 public class Bot{
417     public static void main(String[] x) throws InterruptedException {
418         System.out.println("Java Bot v0.1.1 🤖");
419         System.out.print("Please Enter Your Name: ");
420         Scanner in = new Scanner(System.in);
421         String userName = in.nextLine();
422         final String TEXT_PURPLE = "\u001B[35m";
423         final String TEXT_CYAN = "\u001B[36m";
424         final String TEXT_YELLOW = "\u001B[33m";
425         System.out.print(TEXT_PURPLE + "hello ");
426         System.out.print(TEXT_CYAN+ userName);
427         System.out.println(TEXT_YELLOW+ " to Java Bot v0.1.1");
428         Robot robo = new Robot();
429         int c = 0;
430         while(1<2){
431             robo.startChating();
432             System.out.println();
433             c++;
434         }
435     }
436 }

```

## 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\aaajchaabhyass.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.