

**Course Experiment Report**

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| **Course:** | Java Language | | | | | | |
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| **Semester:** | 1-18th | **week** | 2nd | **year** | | 1st | **term** |
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| **Major:** | Software Engineering | | | | | **Class:** | 2019 |
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College of Computer and Information Science

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| Project | Exp2 Control Statements | | |
| Time | 2020/9/30 | Type | □Verification □Design □Synthetical |
| 1 Think and answer the question   1. What happens if break is missing in the switch statement?   The program will continue to execute the next statement until there is a break.   1. What is the difference between the while and do..while statements?   “While” statements judge the condition first and then execute the statements while “do while” statements will execute the statements first and then judge the condition.   1. How to use while(true) and break together?   In the loop of “while(true)”,there is no way to end the infinity loop unless you use the “break” statement.   1. Other experience. 2. You cannot use the ”==” to judge whether two strings are equaled.   “equals()” is used to determine whether two variables or instances are equaled pointing to the same memory space.And “==” is used to determine whether two variables or instances point to the same memory space   1. Although the “equals()” in String is uesd to compared the values   of two strings, “equals()” in objects is used to campared the address  of two objects.The equals() in different classes can be overwrited.  2. All Codes  (1). PointInCircle.java  import java.util.Scanner; public class PointInCircle {  public static void main(String[] args) {  double x = 0.0;  double y = 0.0;  final double r = 10;  double length = 0.0;  String con = "";   Scanner input = new Scanner(System.*in*);  while(true) {  System.*out*.print("\nEnter a point with two coordinates:");  x = input.nextDouble();  y = input.nextDouble();  double temp = Math.*pow*(x,2)+Math.*pow*(y,2);  length = Math.*sqrt*(temp);  if (length<10)  System.*out*.printf("Point(%.2f,%.2f) is in the circle", x, y);  else if (length==10)  System.*out*.printf("Point(%.2f,%.2f) is on the circle", x, y);  else  System.*out*.printf("Point(%.2f,%.2f) is not in the circle", x, y);  System.*out*.print("\nContinue?(y/n)");  con = input.next();  if (con.equals("n")||con.equals("N")) {  System.*out*.println("Bye!");  break;  }  else {  continue;  }  }  input.close();  } }  (2).RockScissorPaper.java  import java.util.Scanner; public class RockScissorPaper {  public static void main (String[]args)  {  System.*out*.println("\*\*\*\*\*\*\*\*\*\*\*Game Start!\*\*\*\*\*\*\*\*\*\*\*");  Scanner input = new Scanner(System.*in*);  int user\_count = 0;  int computer\_count = 0;  int computer = 0;  int user = 0;  String [] option = {"scissor","rock","paper"};   do  {  computer = (int) (Math.*random*()\*3);  System.*out*.print("\nscissor(0),rock(1),paper(2):");  user = input.nextInt();  if (user<=2&&user>=0)  {  if(user<computer)  {  if(user==0&&computer==2)  {  user\_count++;  }  else {  computer\_count++;  }  System.*out*.printf("The computer is %s,You are %s,(computer:%d,you:%d)",option[computer],option[user],computer\_count,user\_count);  }  else if(user==computer)  {  System.*out*.printf("The computer is %s,You are %s,(computer:%d,you:%d)",option[computer],option[user],computer\_count,user\_count);  }  else{  if(computer==2&&user==0)  {  computer\_count++;  }  else  {  user\_count++;  }  System.*out*.printf("The computer is %s,You are %s,(computer:%d,you:%d)",option[computer],option[user],computer\_count,user\_count);  }  }  else  {  System.*out*.println("Your input is invalid, please enter again.");  continue;  }  }while(user\_count<2&&computer\_count<2);  if(user\_count==2)  {  System.*out*.println("\nYou win! The computer loses!");  }  if (computer\_count==2)  {  System.*out*.println("\nThe computer wins! You lose!");  }  } } | | | |
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| Evaluation | Code Correctness (60%): |  |
| Experience (40%): |  |
| Score： | |