

**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 | 2020.9.28 | Type | □Verification □Design □Synthetical |
| 1. Answer the questions  (1) What happens if break is missing in the switch statement?  A: The program will execute all statement after this case until the switch statement is over.  (2) What is the difference between the while and do..while statements?  A: The do..while statements will run at least once.  (3) How to use while(true) and break together?  A: Define a variable and change its value in the loop, use break when this variable arrive at the end condition.  (4) Other experience.  A: Unlike C language, the Java language does not use %lf placeholders to represent a ‘double’ variable, and using %lf placeholders can lead to unanticipated exceptions. The results of learning other programming languages cannot be rigidly applied to new learning.  2. All Codes  Exercise1:  **package** week2;  **import** java.util.Scanner;  **public** **class** Ex1 {    **public** **static** **void** **main**(String[] args) {  Scanner **input** = **new** Scanner(System.***in***);  **double** **radius** = 10.0;  System.***out***.println("Please input x and y");  **double** **x** = input.nextDouble();  **double** **y** = input.nextDouble();  **double** **dist** = Math.*sqrt*(x \* x + y \* y);  **if** (dist > radius)  System.***out***.printf("Point(%4.1f, %4.1f) is outside the circle.\n", x, y);  **else** **if** (dist < radius)  System.***out***.printf("Point(%4.1f, %4.1f) is in the circle.\n", x, y);  **else**  System.***out***.printf("Point(%4.1f, %4.1f) is on the circle.\n", x, y);  input.close();    }    }  Result:    Exersice2:  **package** week2;  **import** java.util.Scanner;  **public** **class** Ex2 {  **public** **static** **void** **main**(String[] args) {  Scanner **input** = **new** Scanner(System.***in***);  System.***out***.println("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Game Start!\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");  **int** **playerWin** = 0;  **int** **compWin** = 0;  String[] **types** = {"scissor", "rock", "paper"};  **while**(playerWin < 2 && compWin < 2)  {  **int** **comp** = (**int**)(Math.*random*() \* 3);  System.***out***.print("scissor (0), rock (1), paper (2):");  **int** **player** = input.nextInt();  **if** (player < 0 || player > 2)  {  System.***out***.println("illegal input, try again!");  **continue**;  }  **if** (player == comp)  System.***out***.printf("The computer is %s. You are %s.(computer:%d, you:%d)\n", types[comp], types[player], compWin, playerWin);  **else** **if** (player == 0 && comp == 2 || player == 1 && comp == 0 || player == 2 && comp == 1)  {  playerWin++;  System.***out***.printf("The computer is %s. You are %s.(computer:%d, you:%d)\n", types[comp], types[player], compWin, playerWin);  }  **else**  {  compWin++;  System.***out***.printf("The computer is %s. You are %s.(computer:%d, you:%d)\n", types[comp], types[player], compWin, playerWin);  }    }  **if** (playerWin == 2)  System.***out***.println("You Win!");  **else**  System.***out***.println("Computer Win!");  input.close();  }  }  Result: | | | |

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| Evaluation | Code Correctness (60%): |  |
| Experience (40%): |  |
| Score： | |