

CHAPTER
ANS-05
การดำเนินการกับสตริง
(String Operations)
โจทย์ข้อที่ 1 [ระดับง่าย]

ข้อ	ประเภทตัวแปร	ค่าที่เก็บในตัวแปร
1.	int	6
2.	int	5
3.	int	1
4.	int	3
5.	String	CHULA chula
6.	char	v
7.	int	4
8.	int	9
9.	int	8
10.	int	8

ข้อ	ประเภทตัวแปร	ค่าที่เก็บในตัวแปร
11.	int	-1
12.	int	7
13.	String	JavaChula
14.	String	I Lo
15.	String	love java
16.	boolean	false
17.	boolean	true
18.	boolean	true
19.	int	-20
20.	[Error]	[Error]

โจทย์ข้อที่ 2 [ระดับง่าย]

ข้อ	ประเภทตัวแปร	ค่าที่เก็บในตัวแปร
1.	int	2000
2.	[Error]	[Error]
3.	double	2000.0
4.	double	1000.0
5.	String	2000

ข้อ	ประเภทตัวแปร	ค่าที่เก็บในตัวแปร
6.	[Error]	[Error]
7.	String	2000.0
8.	String	1000.0
*9.	boolean	false
10.	boolean	true

โจทย์ข้อที่ 3 [ระดับง่าย]

1.

```
p = p.toUpperCase();  
r = r.toUpperCase();
```

2.

```
boolean y = p.substring(4, 5).equals(r.substring(4, 5));
```

3.

```
double m = Double.parseDouble(p.substring(1, 6));
```

โจทย์ข้อที่ 4 [ระดับง่าย]

```
import java.util.Scanner;
public class InputWords {
    public static void main(String[] args) {
        Scanner kb = new Scanner(System.in);
        String text = "";
        while (true) {
            System.out.print("Enter Word: ");
            String w = kb.next();
            if (w.toLowerCase().equals("stop")) break;
            text += w + " "; /* text = text + w + " "; */
        }
        System.out.println(text);
    }
}
```

โจทย์ข้อที่ 5 [ระดับปานกลาง]

```
import java.util.Scanner;
public class RemoveSpaceFromSentence {
    public static void main(String[] args) {
        Scanner kb = new Scanner(System.in);
        System.out.print("Enter Sentence: ");
        String s = kb.nextLine();
        String sn = "";
        for (int i = 0; i < s.length(); i++) {
            String t = s.substring(i, i + 1);
            if (!t.equals(" ")) {
                sn = sn + t;
            }
        }
        System.out.println(sn);
    }
}
```

โจทย์ข้อที่ 6 [ระดับปานกลาง]

```
import java.util.Scanner;
public class ReverseSentence {
    public static void main(String[] args) {
        Scanner kb = new Scanner(System.in);
        System.out.print("Enter Sentence: ");
        String s = kb.nextLine(), rs = "";
        for (int i = s.length() - 1; i >= 0; i--) {
            String t = s.substring(i, i + 1);
            rs = rs + t;
        }
        System.out.println(rs);
    }
}
```

โจทย์ข้อที่ 7 [ระดับปานกลาง]

```
import java.util.Scanner;
public class FullName {
    public static void main(String[] args) {
        Scanner kb = new Scanner(System.in);
        System.out.print("Full Name: ");
        String fullName = kb.nextLine();
        int i = fullName.trim().indexOf(" ");
        if (i == -1) {
            System.out.println("Incorrect Name");
        } else {
            String firstName = fullName.substring(0, i);
            String lastName = fullName.substring(i + 1).trim();
            System.out.println("First Name: " + firstName.toUpperCase());
            System.out.println("Last Name: " + lastName.toLowerCase());
        }
    }
}
```

โจทย์ข้อที่ 8 [ระดับปานกลาง]

1) `String s1 = "<title>First Web Page</title>";`
`String s2 = "JavaChula";`

2) `int start = s1.indexOf("<title>") + 7;`
`int end = s1.indexOf("</title>");`
`String title = s1.substring(start, end);`

3) `int start = s2.indexOf("\"") + 1;`
`int end = s2.lastIndexOf("\"");`
`String url = s2.substring(start, end);`

โจทย์ข้อที่ 9 [ระดับปานกลาง]

```
int first = d.indexOf("/");
int last = d.lastIndexOf("/");
System.out.println(d.substring(0, first));
System.out.println(d.substring(first + 1, last));
System.out.println(d.substring(last + 1));
```

โจทย์ข้อที่ 10 [ระดับยาก]

```
import java.util.Scanner;
public class Palindrome {
    public static void main(String[] args) {
        Scanner kb = new Scanner(System.in);
        System.out.print("Text: ");
        String t = kb.nextLine(), s = "", r = "";
        for (int i = 0; i < t.length(); i++) {
            String x = t.substring(i, i + 1);
            if (!x.equals(" ")) {
                s = s + x;
                r = x + r;
            }
        }
        if (s.equalsIgnoreCase(r)) {
            System.out.println("It is palindrome");
        } else {
            System.out.println("It is not palindrome");
        }
    }
}
```

โจทย์ข้อที่ 11 [ระดับยาก]

```
import java.util.Scanner;
public class NumberAndCharacter {
    public static void main(String[] args) {
        Scanner kb = new Scanner(System.in);
        System.out.print("STRING: ");
        String s = kb.nextLine();
        int max = -1, min = 10, sum = 0, digit = 0, text = 0;
        for (int i = 0; i < s.length(); i++) {
            String ch = s.substring(i, i + 1);
            if (ch.compareTo("0") >= 0 && ch.compareTo("9") <= 0) {
                int n = Integer.parseInt(ch);
                if (n > max) {
                    max = n;
                }
                if (n < min) {
                    min = n;
                }
                sum += n;
                digit++;
            } else {
                text++;
            }
        } //End of for
        System.out.println("MAX VALUE: " + max);
        System.out.println("MIN VALUE: " + min);
        System.out.println("AVERAGE VALUE (" + sum + "/" + digit + "): " +
            ((double) sum / (double) digit));
        System.out.println("TOTAL CHARACTER: " + text);
    } //End of main
} //End of class
```

โจทย์ข้อที่ 12 [ระดับยาก]

```
import java.util.Scanner;
public class NoobChat {
    public static void main(String[] args) {
        Scanner kb = new Scanner(System.in);
        System.out.print("Message: ");
        String message = kb.nextLine();
        String m = message.toLowerCase();
        String badWord = "";
        int bw = 0;

        if (m.indexOf("shit") >= 0) {
            badWord += "Shit "; bw++;
        }
        if (m.indexOf("fuck") >= 0) {
            badWord += "Fuck "; bw++;
        }
        if (m.indexOf("java") >= 0) {
            badWord += "Java "; bw++;
        }

        if (bw == 0) {
            System.out.println(message);
        } else if (bw == 1) {
            System.out.println(badWord + "is Bad Word.");
        } else {
            System.out.println(badWord + "are Bad Words.");
        } //End of if
    } //End of main
} //End of class
```

โจทย์ข้อที่ 13 [ระดับเทพ]

```

import java.util.Scanner;
public class GodNoobChat {
    public static void main(String[] args) {

        Scanner kb = new Scanner(System.in);
        String msg = "", lMsg = "", rMsg = "";
        System.out.println("Message: ");
        while (true) {
            lMsg = kb.nextLine();
            if (lMsg.equals("...")) break;
            msg += lMsg + "\n";
        }
        for (int i = 0; i < msg.length(); i++) {
            if (!msg.substring(i, i + 1).equals(" ") &&
                !msg.substring(i, i + 1).equals("\n"))
                rMsg += msg.substring(i, i + 1);
        }

        int countShit = 0, countFuck = 0, countJava = 0;
        String temp = rMsg.toLowerCase();
        while (temp.indexOf("shit") >= 0) {
            countShit++;
            temp = temp.substring(temp.indexOf("shit") + 4);
        }
        temp = rMsg.toLowerCase();
        while (temp.indexOf("fuck") >= 0) {
            countFuck++;
            temp = temp.substring(temp.indexOf("fuck") + 4);
        }
        temp = rMsg.toLowerCase();
        while (temp.indexOf("java") >= 0) {
            countJava++;
            temp = temp.substring(temp.indexOf("java") + 4);
        }

        System.out.println("Count \"Shit\": " + countShit);
        System.out.println("Count \"Fuck\": " + countFuck);
        System.out.println("Count \"Java\": " + countJava);

        String badWord = ""; int bw = 0;
        if (countShit > 0) { badWord += "Shit "; bw++; }
        if (countFuck > 0) { badWord += "Fuck "; bw++; }
        if (countJava > 0) { badWord += "Java "; bw++; }
        if (bw == 0) {
            System.out.println(msg);
        } else if (bw == 1) {
            System.out.println(badWord + "is bad word.");
        } else {
            System.out.println(badWord + "are bad word.");
        }
    } //End of main
} //End of class

```

CHAPTER
ANS-06
การดำเนินการกับแฟ้มข้อมูล
(File Operations)
โจทย์ข้อที่ 1 [ระดับง่าย]

<code>in.nextInt()</code>	<code>in.nextDouble()</code>	<code>in.nextLine()</code>	<code>in.next()</code>
1	1.0	1 2 3	1
2	2.0	4	2
3	3.0	5 6	3
4	4.0	7.0 8 9D 0	4
5	5.0		5
6	6.0		6
[Error]	7.0		7.0
	8.0		8
	[Error]		9D
			0

จำนวนรอบของ while	จำนวนรอบของ while	จำนวนรอบของ while	จำนวนรอบของ while
7 รอบ	9 รอบ	4 รอบ	10 รอบ

โจทย์ข้อที่ 2 [ระดับง่าย]

```
import java.util.Scanner;
import java.io.*;
public class NumberOfLine {
    public static void main(String[] args) throws IOException {
        Scanner in = new Scanner(new File("data.txt"));
        int numOfLine = 0;
        while(in.hasNext()) {
            in.nextLine();
            numOfLine++;
        }
        System.out.println("Number of Lines: " + numOfLine);
        in.close();
    }
}
```

โจทย์ข้อที่ 3 [ระดับง่าย]

```
import java.util.Scanner;
import java.io.*;
public class NumberOfWord {
    public static void main(String[] args) throws IOException {
        Scanner in = new Scanner(new File("data.txt"));
        int numOfWork = 0;
        while(in.hasNext()) {
            in.next();
            numOfWork++;
        }
        System.out.println("Number of Words: " + numOfWork);
        in.close();
    }
}
```

โจทย์ข้อที่ 4 [ระดับง่าย]

```
import java.util.Scanner;
import java.io.*;
public class NumberOfCharacter {
    public static void main(String[] args) throws IOException {
        Scanner in = new Scanner(new File("data.txt"));
        int numOfChar = 0;
        while(in.hasNext()) {
            numOfChar += in.nextLine().length();
        }
        System.out.println("Number of Chars: " + numOfChar);
        in.close();
    }
}
```

โจทย์ข้อที่ 5 [ระดับปานกลาง]

```
import java.util.Scanner;
import java.io.*;
public class CountEngStudent {
    public static void main(String[] args) throws IOException {
        Scanner in = new Scanner(new File("std.txt"));
        int count = 0;
        while (in.hasNext()) {
            String s = in.nextLine();
            if (s.substring(s.length() - 2).equals("21")) count++;
        }
        in.close();
        System.out.println("Engineering Students: " + count);
    } //End of main
} //End of class
```

โจทย์ข้อที่ 6 [ระดับปานกลาง]

```
import java.util.Scanner;
import java.io.*;
public class StudentGrade {
    public static void main(String[] args) throws IOException {
        Scanner in = new Scanner(new File("score.txt"));
        int i = 1;
        while (in.hasNext()) {
            String id = in.next();
            double score = in.nextDouble();
            in.next(); //faculty
            if(score >= 60.0) {
                System.out.println(i + ".\t" + id + "\tS");
            } else {
                System.out.println(i + ".\t" + id + "\tU");
            }
            i++;
        }
        in.close();
    } //End of main
} //End of class
```

โจทย์ข้อที่ 7 [ระดับยาก]

```
import java.util.Scanner;
import java.io.*;
public class StudentInfoFromFile {
    public static void main(String[] args) throws IOException {
        Scanner in = new Scanner(new File("student.dat"));
        int i = 1;
        while (in.hasNext()) {
            String id = in.next();
            String fname = in.next();
            String lname = in.next();
            double grade = in.nextDouble();
            int year = 54 - Integer.parseInt(id.substring(0, 2));
            String y = "";
            if (year == 1) y = year + "st";
            if (year == 2) y = year + "nd";
            if (year == 3) y = year + "rd";
            if (year >= 4) y = year + "th";
            String shortName = fname.substring(0, 1).toUpperCase() + ".";
            String status = "";
            if (grade >= 2.00) status = "Pass";
            if (grade >= 1.00 && grade < 2.00) status = "Critical";
            if (grade < 1.00) status = "Retired";
            System.out.println(i++ + ".\t" + id + "\t" + y + "\t" +
                shortName + " " + lname + "\t" +
                grade + "\t" + status);
        } //End of while
        in.close();
    } //End of main
} //End of class
```

โจทย์ข้อที่ 8 [ระดับยาก]

```
import java.util.Scanner;
import java.io.*;
public class CountLoveFromSongFile {
    public static void main(String[] args) throws IOException {
        Scanner in = new Scanner(new File("song.txt"));
        int w1 = 0, w2 = 0;
        String s = "", txt = "";
        while (in.hasNext()) {
            s = in.next().toLowerCase();
            if (s.equals("love")) w1++;
            txt += s;
        }
        while (txt.indexOf("love") >= 0) {
            w2++;
            txt = txt.substring(txt.indexOf("love") + 4);
        }
        in.close();
        System.out.println("Count Words #1: " + w1);
        System.out.println("Count Words #2: " + w2);
    }
}
```

โจทย์ข้อที่ 9 [ระดับยาก]

```
import java.util.Scanner;
import java.io.*;
public class FComparison {
    public static void main(String[] args) throws IOException {
        Scanner in1 = new Scanner(new File("data1.dat"));
        Scanner in2 = new Scanner(new File("data2.dat"));
        int f1 = 0, f2 = 0, n1 = 0, n2 = 0;
        in1.nextLine();
        while (in1.hasNext()) {
            in1.next(); in1.next();
            String grade = in1.next();
            if (grade.equals("F")) f1++;
            n1++;
        } //End of while
        in2.nextLine();
        while (in2.hasNext()) {
            in2.next(); in2.next();
            String grade = in2.next();
            if (grade.equals("F")) f2++;
            n2++;
        } //End of while
        in1.close(); in2.close();
        System.out.println("F 2/2552: " + ((double) f1 / n1) * 100);
        System.out.println("F 2/2553: " + ((double) f2 / n2) * 100);
        if (f1 > f2) System.out.println("F (2/2552) > F (2/2553)");
        if (f1 == f2) System.out.println("F (2/2552) = F (2/2553)");
        if (f1 < f2) System.out.println("F (2/2552) < F (2/2553)");
    } //End of main
} //End of class
```

โจทย์ข้อที่ 10 [ระดับง่าย]

```
import java.io.*;
import java.util.Scanner;
public class InputStringToFile {
    public static void main(String[] args) throws IOException {
        Scanner kb = new Scanner(System.in);
        PrintStream out = new PrintStream(new File("sentence.txt"));
        int i = 1;
        while (true) {
            System.out.print("Sentence: ");
            String s = kb.nextLine().toUpperCase();
            if (s.trim().equalsIgnoreCase("stop")) break;
            out.println(i + ": " + s);
            i++;
        }
        System.out.println("File is saved");
        out.close();
    }
}
```

โจทย์ข้อที่ 11 [ระดับยาก]

```
import java.util.Scanner;
import java.io.*;
public class ReverseTextFile {
    public static void main(String[] args) throws IOException {
        Scanner in = new Scanner(new File("text.txt"));
        PrintStream out = new PrintStream(new File("revtext.txt"));
        while (in.hasNext()) {
            String s = in.nextLine();
            String rev = "";
            for (int i = s.length() - 1; i >= 0; i--) {
                rev += s.substring(i, i + 1);
            }
            out.println(rev);
        }
        in.close();
        out.close();
    }
}
```