



รายงาน

Midterm project รวมเล่ม

โดย

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รายงานนี้เป็นส่วนหนึ่งของวิชา BCOM 361  
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# งานที่ 1 คำศัพท์เฉพาะ 4 คำ

boolean byte char double float int long short static  
strictly transient void assert break case catch continue default  
do else finally for if return switch synchronized throw throws try  
while ~~do~~ abstract ~~extends~~ implements ~~import~~ instanceof  
interface native ~~new~~ ~~new~~ ~~new~~ package private ~~protected~~ ~~public~~  
super this ~~those~~ volatile ~~void~~ ~~const~~ ~~goto~~ ~~goto~~

boolean byte char double float int long short static  
strictly transient void assert break case catch continue default do else finally  
for if ~~return~~ switch synchronized ~~throw~~ ~~throws~~ ~~try~~ ~~while~~ ~~abstract~~ ~~extends~~ ~~implements~~ ~~import~~ ~~instanceof~~  
~~interface~~ ~~native~~ ~~new~~ ~~new~~ ~~new~~ package private ~~protected~~  
~~public~~ ~~super~~ ~~super~~ ~~this~~ ~~those~~ volatile ~~const~~ ~~goto~~

boolean byte char double float int long short ~~static~~ ~~strictly~~  
~~transient~~ ~~void~~ ~~assert~~ ~~break~~ ~~case~~ ~~catch~~ ~~at~~ ~~continue~~  
~~default~~ ~~do~~ ~~else~~ ~~finally~~ ~~for~~ ~~if~~ ~~return~~ ~~switch~~ ~~synchronized~~  
~~throw~~ ~~throws~~ ~~try~~ ~~while~~ ~~why~~ ~~abstract~~ ~~attention~~ ~~class~~ ~~extends~~ ~~implements~~  
~~import~~ ~~instanceof~~ ~~interface~~ ~~native~~ ~~new~~ ~~new~~ ~~new~~ package private  
~~programmer~~ ~~protected~~ ~~public~~ ~~super~~ ~~this~~ ~~volatile~~ ~~const~~ ~~goto~~

boolean byte char double float int long short  
static strictly transient void assert break case catch  
continue default do else finally for if ~~return~~  
switch synchronized system throw ~~then~~ ~~throw~~ ~~try~~ ~~while~~  
abstract class close extends implements ~~import~~ ~~instanceof~~  
inter interface native ~~new~~ ~~new~~ ~~new~~ package private  
person ~~protected~~ ~~pin~~ ~~public~~ ~~super~~ ~~super~~ ~~this~~ ~~throw~~  
volatile ~~const~~ ~~goto~~

boolean byte char double final float int long short  
static strictly transient void assert break case catch  
continue default do else finally for if ~~return~~ switch  
synchronized ~~throw~~ ~~throws~~ ~~try~~ ~~while~~ ~~do~~ ~~abstract~~ ~~abstract~~  
class extends implements ~~import~~ ~~import~~ ~~instanceof~~ ~~interface~~  
native ~~new~~ ~~new~~ ~~new~~ package private ~~protected~~  
~~public~~ ~~style~~ ~~super~~ ~~this~~ ~~those~~ ~~volatile~~ ~~void~~ ~~const~~  
~~const~~ ~~goto~~

boolean byte char double final float int long long short ~~static~~  
~~static~~ ~~strictly~~ ~~sumo~~ ~~transient~~ ~~void~~ ~~assert~~ ~~break~~ ~~case~~  
~~catch~~ ~~at~~ ~~continue~~ ~~default~~ ~~do~~ ~~else~~ ~~finally~~ ~~for~~  
~~for~~ ~~if~~ ~~return~~ ~~switch~~ ~~synchronized~~ ~~then~~ ~~throw~~ ~~try~~ ~~while~~  
~~why~~ ~~abstract~~ ~~attention~~ ~~class~~ ~~extends~~ ~~implements~~ ~~import~~  
~~instanceof~~ ~~interface~~ ~~native~~ ~~new~~ ~~new~~ ~~new~~ package private  
~~programmer~~ ~~protected~~ ~~public~~ ~~super~~ ~~this~~ ~~volatile~~ ~~const~~  
~~goto~~

## งานที่ 2 เขียนโปรแกรม Java ให้ผิด 5 จุด 10 โปรแกรม

```

1) 1 import java.util.Date
2   class JO203 {
3     public static void main (String args[]) {
4       byte a = (byte) (new Date().getTime() / 5);
5       switch (a) {
6         case 1:
7           System.out.println("one"); break;
8         case 2:
9           System.out.println("two"); break;
10        default:
11          System.out.println("not found" + a);
12          break;
13        }
14      }
15    }

```

```

1   บรรทัด 1 Date;
2   บรรทัด 6 case 1:
3   บรรทัด 7 ("one");
4   บรรทัด 9 ("two")
5   บรรทัด 9 ("two");

```

```

1   class JO204 {
2     public static void main (String args[]) {
3       System.out.println("A S(1) character:");
4       for (int i = 0; i < 256; i++)
5         System.out.print((char) i + " ");
6     }
7     String s = "thai11"
8     System.out.println(s + s.length());
9   }
10  }

```

```

1   บรรทัด 4 ; i++) {
2   บรรทัด 5 ((char)
3   บรรทัด 7 strings
4   บรรทัด 7 "thai11";
5   บรรทัด 8 s.length

```

```

1 class J0206 {
2     public static void main (String args[]) {
3         System.out.println ("print 7 to 10.");
4         int i;
5         i = 7;
6         try {
7             do {
8                 System.out.println (i);
9                 i++;
10            } while (i <= 10);
11        }
12        catch (ArrayIndexOutOfBoundsException e) {
13            System.out.println ("over index of array");
14        }
15    }
16 }

```

```

1 version 2 String
2 version 3 println
3 version 4 int i;
4 version 5 i = 7;
5 version 10 (i <= 10);

```

```

1 import java.io.*;
2 class J0303 {
3     public static void main (String args[]) throws IOException {
4         System.out.println ("Get until receive 0 hidden is 77, 103");
5         char buf;
6         do {
7             buf = (char) System.in.read();
8             System.out.println ("output is " + buf);
9         } while (buf != '0');
10    }

```

```

1 version 1 java.io.*;
2 version 3 IOException {
3 version 4 [hidden
4 version 8 buf);
5 version 10 }

```



```

1 import java.io.*;
2 class J0104 {
3     public static void main (String args[]) throws IOException {
4         BufferedReader br = new BufferedReader (new InputStreamReader (System.in));
5         String s;
6         int i = 1;
7         int sum = 0;
8         int n = Integer.parseInt (br.readLine());
9         int k = Integer.parseInt (br.readLine());
10        int i2 = Integer.parseInt (br.readLine());
11        int i3 = Integer.parseInt (br.readLine());
12        System.out.println ("Output is " + i + " + i2 + " + i3);
13    }
14 }

```

```

1 vrrn 3 Static
2 vrrn 4 BufferedReader
3 vrrn 4 BufferedReader
4 vrrn 7 k.readLine();
5 vrrn 9 readLine();

```

```

1 class J0403 {
2     public static void main (String args[]) {
3         int i = 3;
4         System.out.println (DoubleOfNumber (i));
5     }
6     static int doubleOfNumber (int i) {
7         i = i * 2;
8         return (i);
9     }
10 }

```

```

1 vrrn 2 void
2 vrrn 2 String
3 vrrn 4 Double
4 vrrn 4 ofNumber (i);
5 vrrn 6 (int) {

```

```

1 import java.io.*;
2 class To602 {
3     public static void main (String args[]) {
4         File d = new File (args[0]);
5         String n[] = d.list();
6         for (int i = 0; i < n.length - 1; i++) {
7             File f = new File (args[0] + "/" + n[i]);
8             System.out.println ("i: " + i + " f: " + f.length());
9         }
10        System.out.println ("d: " + d.getPath());
11    }
12 }

```

```

1 версия 4 (args[0]);
2 версия 4 (args[0]);
3 версия 8 println
4 версия 8 f.length();
5 версия 10 println

```

```

1 import java.io.*;
2 class To603 {
3     public static void main (String args[]) throws IOException {
4         int n = 0;
5         byte b[] = new byte [1024];
6         FileInputStream fin = new FileInputStream ("olot.jar");
7         while (n = fin.read(b) != -1) {
8             for (int i = 0; i < b.length; i++) System.out.print ((char) b[i]);
9         }
10        System.out.println (" fin.read(b)");
11        fin.close();
12    }
13 }

```

```

1 версия 3 IOException {
2 версия 4 int n = 0;
3 версия 6 FileInputStream
4 версия 8 System.
5 версия 11 fin.close();

```

```

1 import java.io.*;
2 class T0604 {
3     public static void main (String args[]) throws IOException {
4         FileOutput Stream fout = new File Output Stream ("tmp.txt");
5         for (int i=0; i<256; i++)
6             fout.write(i);
7     }
8     fout.close();
9 }
10 }

```

1 version 3 throws  
 2 version 5 i++  
 3 version 5 i++}  
 4 version 6 fout  
 5 version 8 fout

```

1 import java.io.*;
2 class T0605 {
3     public static void main (String args[]) throws IOException {
4         FileOutput Stream fout = new File Output Stream ("tmp.txt");
5         for (int i=1; i<=70; i++)
6             fout.write(i+42);
7         fout.write(73);
8         fout.write(70);
9     }
10    fout.close();
11 }
12 }

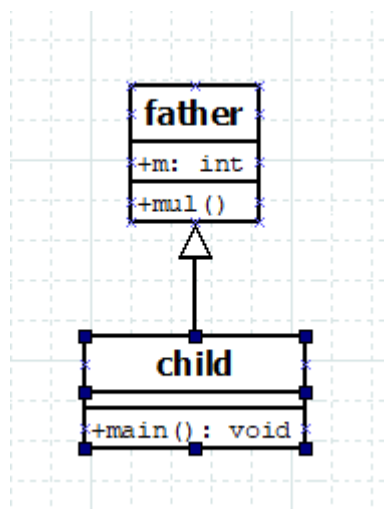
```

1 version 2 T0605 {  
 2 version 3 main  
 3 version 4 stream  
 4 version 5 i++}  
 5 version 70 fout.close();



### งานที่ 3 เขียน Class Diagram 10 ชุด

#### 1. สูตรคูณ แม่ 2



โค้ด

father.java

```

1  class father{
2      static int m;
3      static void mul()
4      {
5          for (int i=1; i<=12; i++) {
6              System.out.println(i*m);
7          }
8      }
9  }
  
```

child.java

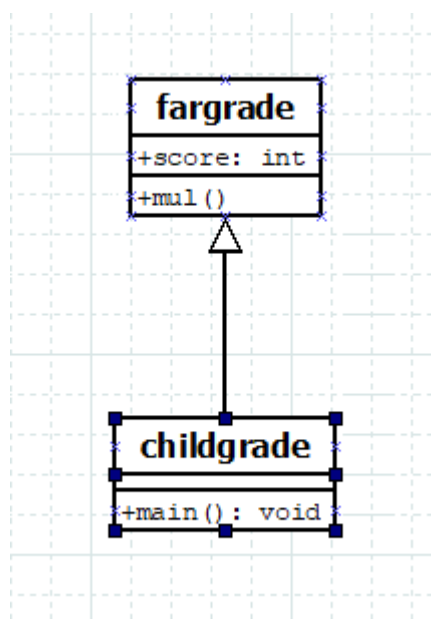
```

1  class child extends father{
2      public static void main(String args[]) {
3          m = 2;
4          mul();
5      }
6  }
  
```

ผลลัพธ์

```
d:\JDK\bin>java child
2
4
6
8
10
12
14
16
18
20
22
24
```

## 2. คำนวณเกรด



โค้ด

fargrade.java

```

1  class fargrade {
2      public static int score;
3      public static void mul() {
4
5          String Grade;
6          if(score >= 80){
7              Grade = "A";
8          }
9          else if(score >= 75){
10             Grade = "B+";
11          }
12          else if(score >= 70){
13             Grade = "B";
14          }
15          else if(score >= 65){
16             Grade = "C+";
17          }
18          else if(score >= 60){
19             Grade = "C";
20          }
21          else if(score >= 55){
22             Grade = "D+";
23          }
24          else if(score >= 50){
25             Grade = "D";
26          }
27          else{
28             Grade = "F";
29          }
30
31          System.out.println(" The Grade is " + Grade);
32      }
33  }
  
```

childgrade.java

```
1  import java.io.*;
2  class childgrade extends fargrade {
3      public static void main(String args[]) throws IOException{
4          BufferedReader stdin = new BufferedReader(new InputStreamReader(System.in));
5          String buf;
6          buf = stdin.readLine();
7          score = Integer.parseInt(buf);
8          mul();
9      }
10 }
```

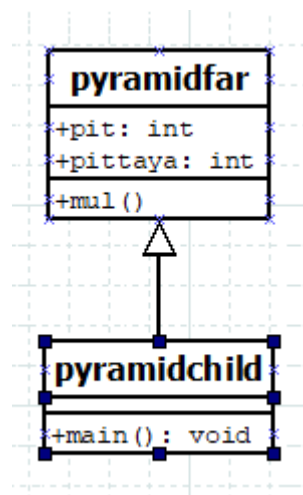
ผลลัพธ์

```
d:\JDK\bin>java childgrade
80
The Grade is A

d:\JDK\bin>java childgrade
75
The Grade is B+

d:\JDK\bin>java childgrade
70
The Grade is B
```

## 3. พีระมิด1



โค้ด

pyramidfar.java

```

1  class pyramidfar {
2      public static int pit;
3      public static int pittaya;
4      public static void mul() {
5          int totalpit = 4;
6          for (int pit=1; pit <= totalpit; pit++) {
7              for (int pittaya=1; pittaya <= pit; pittaya++) {
8                  System.out.print("*"); }
9              for (int pittaya=pit; pittaya >= 2; pittaya--) {
10                 System.out.print(pittaya); }
11             for (int pittaya=1; pittaya <= pit; pittaya++) {
12                 System.out.print(pittaya); }
13             System.out.println();
14         }
15     }
16 }
  
```

pyramidchild.java

```

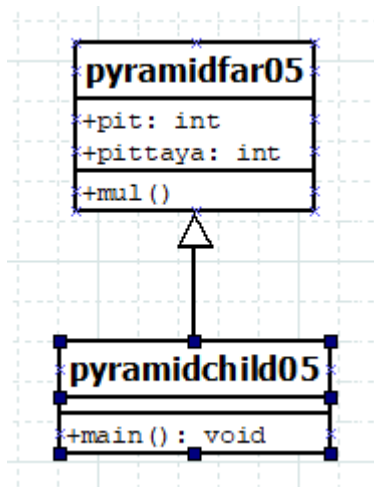
1  class pyramidchild extends pyramidfar{
2      public static void main(String args[]) {
3          mul();
4      }
5  }
  
```



ผลลัพธ์

```
d:\JDK\bin>java pyramidchild
*1
**212
***32123
****4321234
```

## 4. พีระมิด2



โค้ด

pyramidfar05.java

```

1  class pyramidfar05 {
2      public static int pit;
3      public static int pittaya;
4      public static void mul() {
5          for(int pit=1;pit<=4;pit++){
6              for(int pittaya=1;pittaya<=4-pit;pittaya++){
7                  System.out.print(" ");
8              }
9              System.out.print(pit);
10             for(int pittaya=2;pittaya<=pit;pittaya++){
11                 System.out.print("***");
12             }
13             System.out.print(pit);
14             System.out.println();
15         }
16         for(int pit=3;pit>=1;pit--){
17             for(int pittaya=1;pittaya<=4-pit;pittaya++){
18                 System.out.print(" ");
19             }
20             System.out.print(pit);
21             for(int pittaya=2;pittaya<=pit;pittaya++){
22                 System.out.print("***");
23             }
24             System.out.print(pit);
25             System.out.println();
26         }
27     }
28 }
  
```

pyramidchild05.java

```

1  class pyramidchild05 extends pyramidfar05{
2      public static void main(String args[]) {
3          .....
4          mul ();
5      }

```

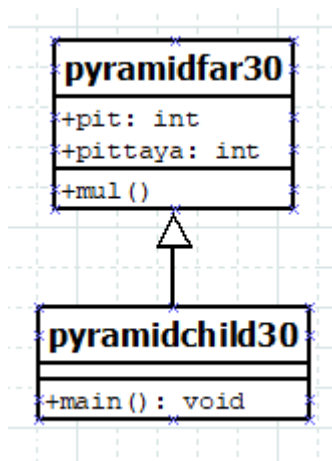
ผลลัพธ์

```

d:\JDK\bin>java pyramidchild05
    11
   2**2
  3****3
 4*****4
 3****3
  2**2
   11

```

## 5. พีระมิด3



โค้ด

pyramidfar30.java

```

1  class pyramidfar30 {
2      public static int pit;
3      public static int pittaya;
4      public static void mul() {
5          for(int pit=1;pit<=5;pit++) {
6              for(int pittaya=2;pittaya<=pit;pittaya++) {
7                  System.out.print(" ");
8              }
9              for(int pittaya=0;pittaya<=5-pit;pittaya++){
10                 System.out.print("*");
11             }
12             for(int pittaya=0;pittaya<=4-pit;pittaya++){
13                 System.out.print("*");
14             }
15             for(int pittaya=pit;pittaya>=1;pittaya--) {
16                 System.out.print(pittaya);
17             }
18             System.out.println();
19         }
20     }
21 }
  
```

pyramidchild30.java

```

1  class pyramidchild30 extends pyramidfar30{
2      public static void main(String args[]) {
3          mul();
4      }
5  }
  
```

ผลลัพธ์

```
d:\JDK\bin>java pyramidchild30
*****1
 *****21
  *****321
   *****4321
    *****54321
```