

DAY 4 CORE JAVA ASSIGNMENT:4

DT:22/07/2022

Q:1) Consider the following code snippet

if (number1 >= 0) if (number1 == 0)

System.out.println("first"),

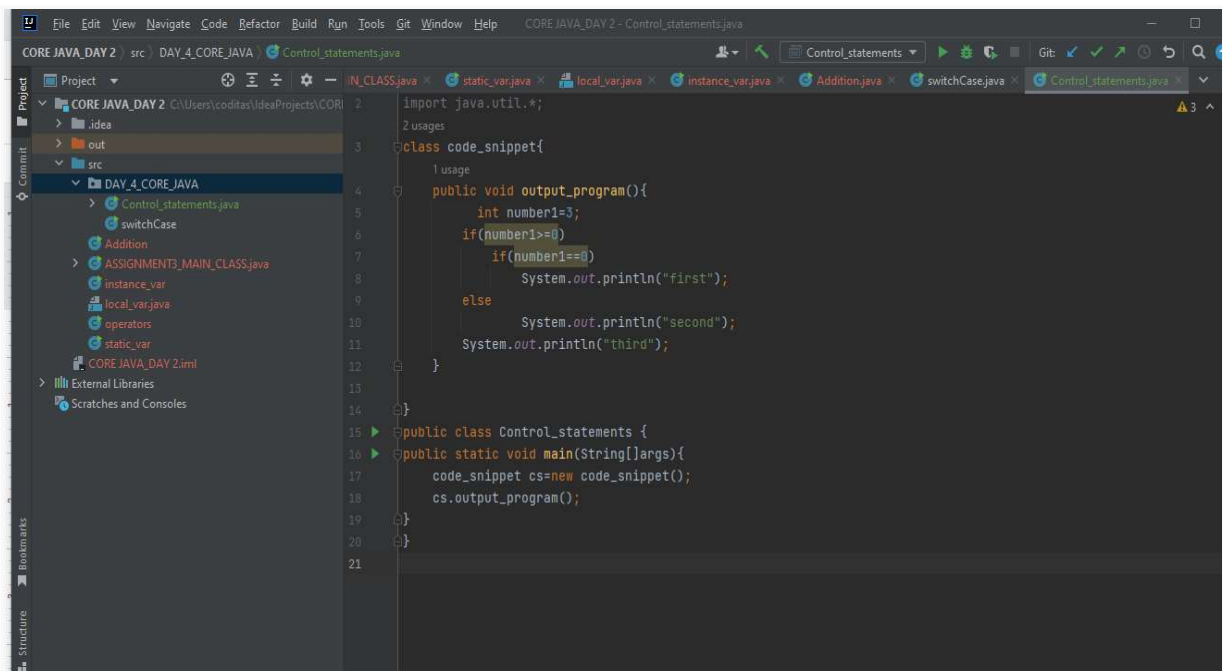
else

System.out.println("second");

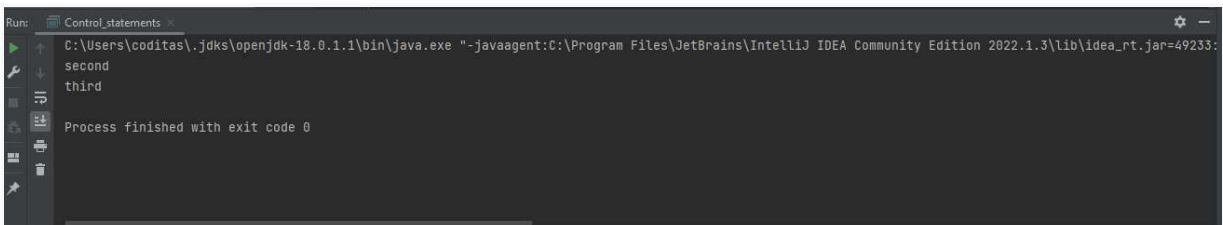
System.out.println("third");

Exercise: What output do you think the code will produce if number is 3?

ANS:1)



```
1  import java.util.*;
2  2 usages
3  class code_snippet{
4      1 usage
5      public void output_program(){
6          int number1=3;
7          if(number1>=0)
8              if(number1==0)
9                  System.out.println("first");
10             else
11                 System.out.println("second");
12             System.out.println("third");
13         }
14     }
15     public class Control_statements {
16     public static void main(String[] args){
17         code_snippet cs=new code_snippet();
18         cs.output_program();
19     }
20 }
21
```



```
Run: Control_statements
C:\Users\coditas\.jdk\openjdk-18.0.1.1\bin\java.exe -javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.1.3\lib\idea_rt.jar=49233:
second
third
Process finished with exit code 0
```

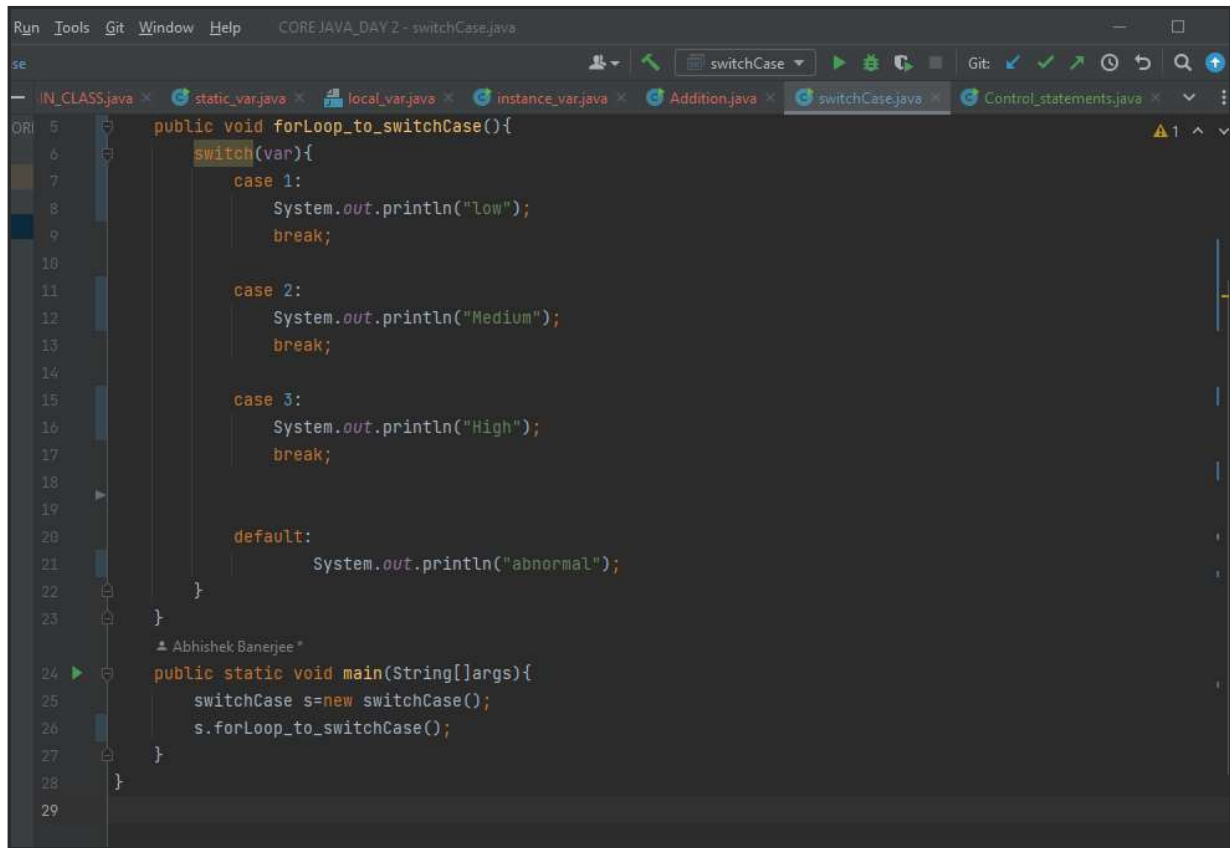
Q:2)Using only spaces and line breaks, reformat the alpove Q1) code snippet to make the control flow easier to understand?

```
ANS:2)package DAY_4_CORE_JAVA;
import java.util.*;
class code_snippet
{
    public void output_program()
    {
        int number1 = 3;
        if(number1 >= 0)
            if(number1 == 0)
                System.out.println("first");
            else
                System.out.println("second");
                System.out.println("third");
    }
}

public class Control_statements
{
    public static void main(String[]args)
    {
        code_snippet cs=new code_snippet();
        cs.output_program();
    }
}
```

**Q:3)Convert the following if-else if code into if(vara 1)
switch case for temperature
System.out.println("low"), else if(var == 2)
System.out.println("medium");
else if(var == 3)
System.out.println("high")) else
System.out.println("abnormal");**

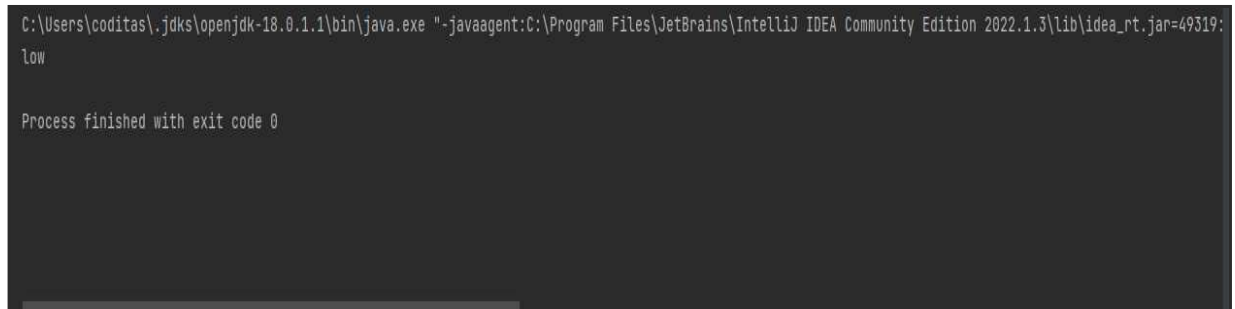
ANS:3)



The screenshot shows the IntelliJ IDEA IDE with a project named 'CORE JAVA_DAY 2'. The 'switchCase.java' file is open, displaying the following code:

```
5 public void forLoop_to_switchCase(){
6     switch(var){
7         case 1:
8             System.out.println("Low");
9             break;
10
11         case 2:
12             System.out.println("Medium");
13             break;
14
15         case 3:
16             System.out.println("High");
17             break;
18
19         default:
20             System.out.println("abnormal");
21     }
22 }
23
24 public static void main(String[] args){
25     switchCase s=new switchCase();
26     s.forLoop_to_switchCase();
27 }
28
29 }
```

The code defines a class with a method `forLoop_to_switchCase()` that uses a `switch` statement to print "Low", "Medium", "High", or "abnormal" based on the value of `var`. The `main` method creates an instance of the class and calls the `forLoop_to_switchCase()` method.



The screenshot shows the output of the Java program. The command executed is:

```
C:\Users\coditas\.jdk\openjdk-18.0.1.1\bin\java.exe "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.1.3\lib\idea_rt.jar=49319:
low
```

The output is:

```
low
```

The process finished with exit code 0.

Q : 4) Rewrite the following program code using the suitable 'if' command.

switch(m){ case 0:

x=x+2;

System.out.println("X=" x);

break;

case 1: Tx=x+4;

System.out.println("X=" x);

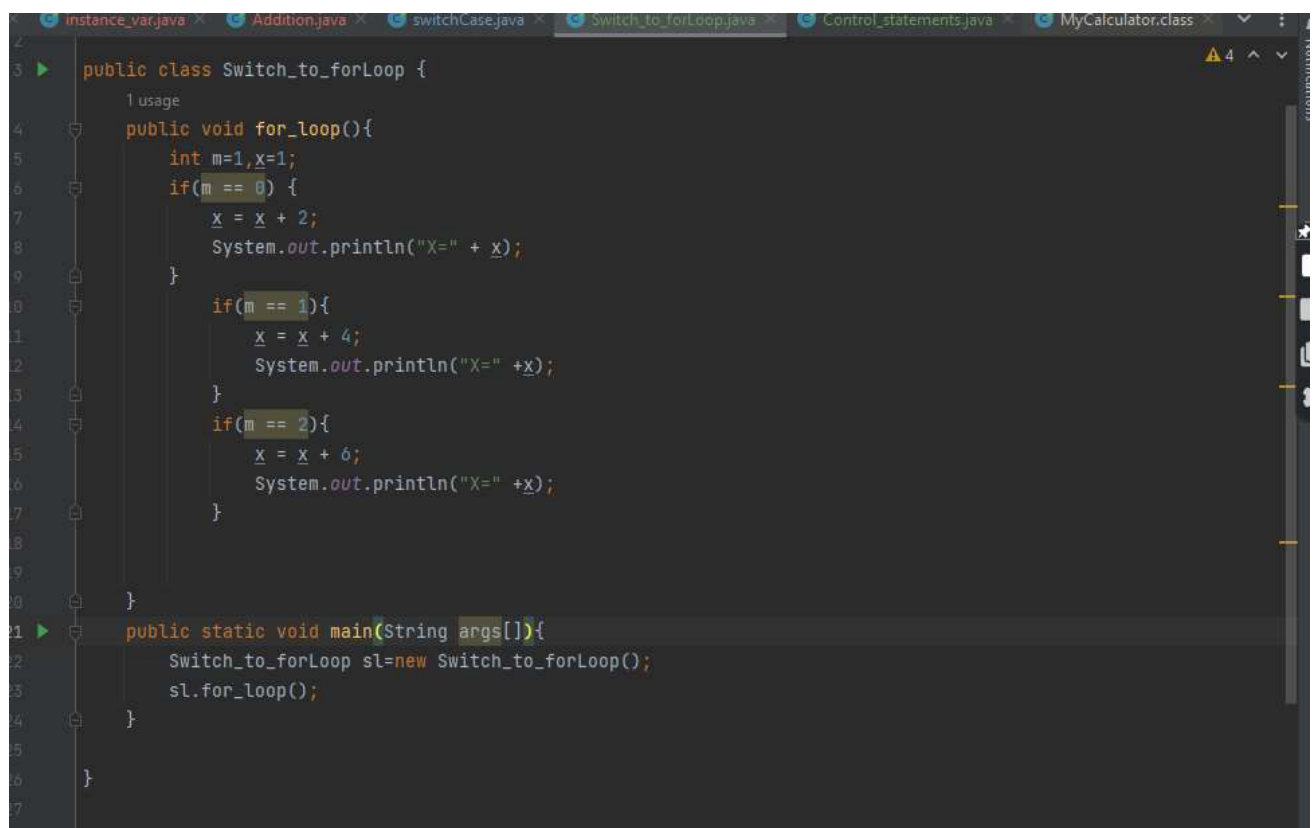
break; case 2:

x=x+6;

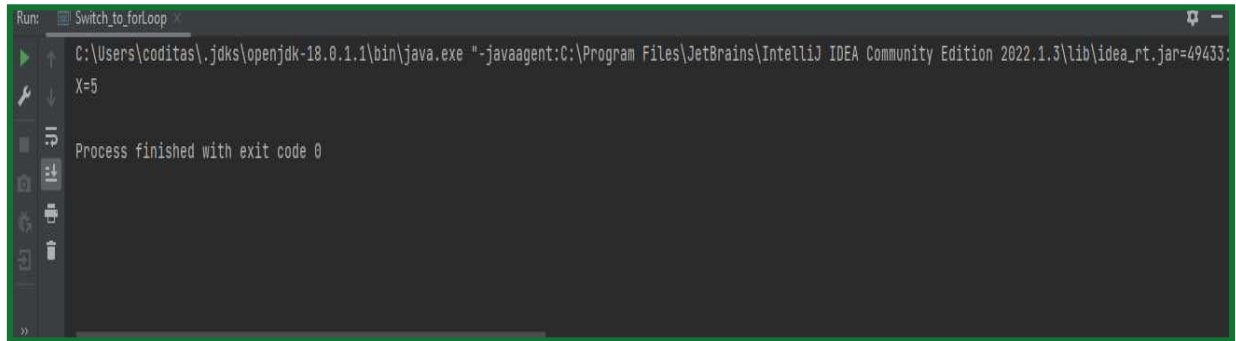
System.out.println("X=" x);

break; }

Ans : 4)

A screenshot of an IDE window showing a Java file named 'Switch_to_forLoop.java'. The code defines a public class 'Switch_to_forLoop' with a method 'for_loop()' and a 'main' method. The 'for_loop()' method uses a switch statement to perform calculations and print the value of 'x' for different cases. The 'main' method creates an instance of the class and calls the 'for_loop()' method.

```
public class Switch_to_forLoop {  
    1 usage  
    public void for_loop(){  
        int m=1,x=1;  
        if(m == 0) {  
            x = x + 2;  
            System.out.println("X=" + x);  
        }  
        if(m == 1){  
            x = x + 4;  
            System.out.println("X=" +x);  
        }  
        if(m == 2){  
            x = x + 6;  
            System.out.println("X=" +x);  
        }  
    }  
    public static void main(String args[]){  
        Switch_to_forLoop sl=new Switch_to_forLoop();  
        sl.for_loop();  
    }  
}
```



```
Run: Switch_to_forLoop x
C:\Users\coditas\.jdk\openjdk-18.0.1.1\bin\java.exe "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.1.3\lib\idea_rt.jar=49433:
X=5
Process finished with exit code 0
```

Q: 5) Take two int values from the user and print the greatest among them?

Ans: 5)



```
package Switch_to_forLoop;
import java.util.*;
2 usages
public class Greatest_num {
    1 usage
    public void g_number(){
        int num1=0,num2=0;
        if(num1>num2)
            System.out.println("num1 is the greatest number");
        else
            System.out.println("num2 is the greatest number");
    }
    public static void main (String args[]){
        Scanner sc=new Scanner(System.in);
        int num1=sc.nextInt();
        int num2=sc.nextInt();
        Greatest_num obj=new Greatest_num();
        obj.g_number();
    }
}
```

```

C:\Users\coditas\.jdk\openjdk-18.0.1.1\bin\java.exe "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.1.3\lib\idea_rt.jar=49549:
45
50
num2 is the greatest number

Process finished with exit code 0

```

Q:6)Take input of age of 3 people by user and determine oldest and youngest among them. (by applying age criteria)?

ANS:6)

```

package DAY_4_CORE_JAVA;
import java.util.*;

public class Calculate age {
    void age_operation() {
        int age1, age2, age3;
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the age of each person : ");
        age1 = sc.nextInt();
        age2 = sc.nextInt();
        age3 = sc.nextInt();
        if( age1 > age2 && age1 > age3 ) {
            System.out.println("Oldest age is : " + age1);
            if( age2 > age3)
                System.out.println("Youngest age is : "+age3);
            else
                System.out.println("Youngest age is : "+age2);
        }
        else if ( age2 > age1 && age2 > age3 ) {
            System.out.println("Oldest age is : " + age2);
            if( age1 > age3)
                System.out.println("Youngest age is : "+age3);
            else
                System.out.println("Youngest age is : "+age1);
        }
        else if ( age3 > age1 && age3 > age2 ) {
            System.out.println("Oldest age is : " + age3);
            if( age1 > age2)
                System.out.println("Youngest age is : "+age2);
            else
                System.out.println("Youngest age is : "+age1);
        }
    }
}

```

```
}  
  
public static void main(String[] args) {  
    Calculate_age age_object = new Calculate_age();  
    age_object.age_operation();  
}  
}
```

```
//OUTPUT IS:  
//Enter the age of each person :  
//45  
//55  
//65  
//Oldest age is : 65  
//Youngest age is : 45  
//  
//Process finished with exit code 0
```

Q:7)1) Perform below operations:

1)print below data:using any loop and jumping statement

Monday

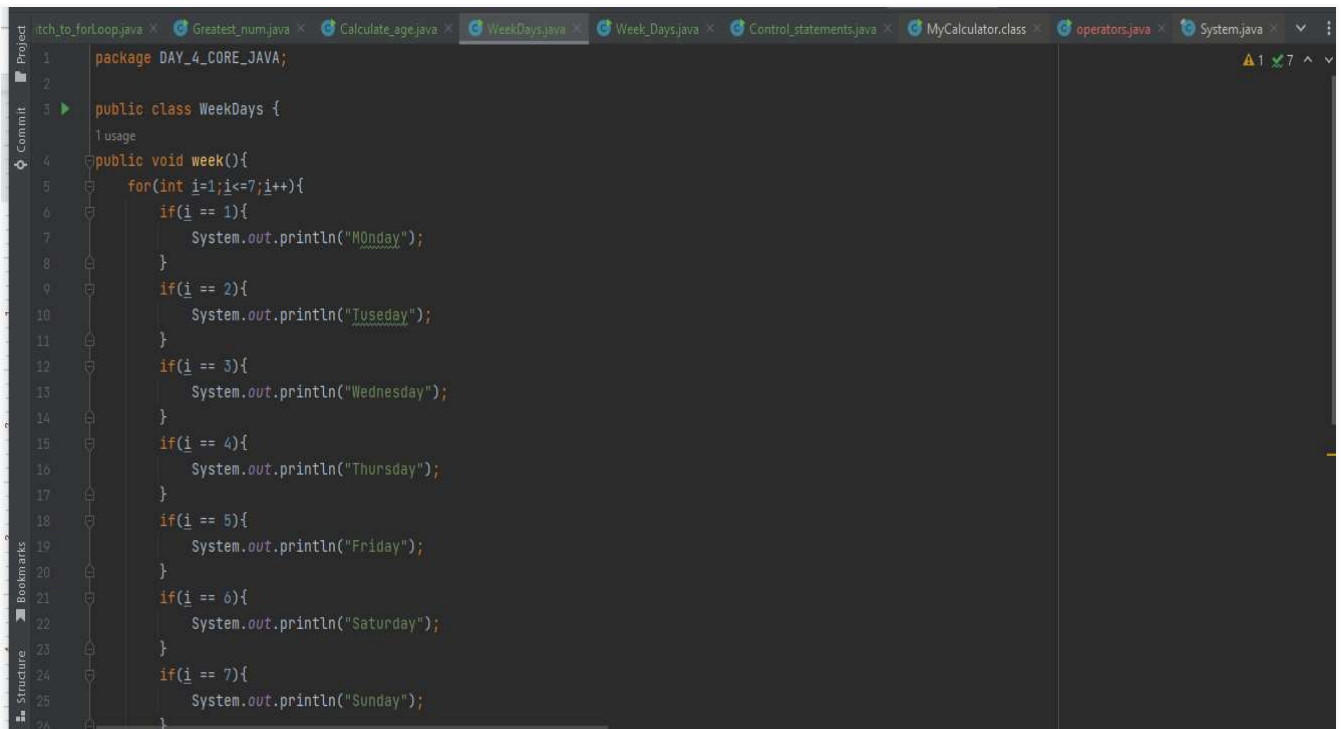
Tuesday

wednesday

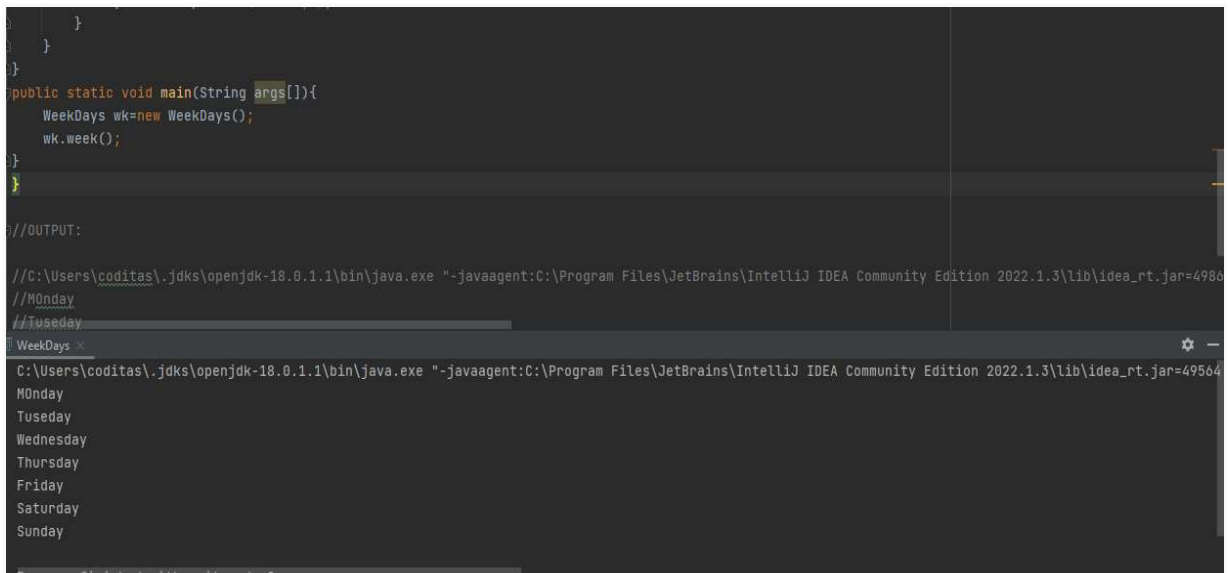
Friday

Saturday

Sunday

Ans:7)1)

```
1 package DAY_4_CORE_JAVA;
2
3 public class WeekDays {
4     public void week(){
5         for(int i=1;i<=7;i++){
6             if(i == 1){
7                 System.out.println("Monday");
8             }
9             if(i == 2){
10                System.out.println("Tuesday");
11            }
12            if(i == 3){
13                System.out.println("Wednesday");
14            }
15            if(i == 4){
16                System.out.println("Thursday");
17            }
18            if(i == 5){
19                System.out.println("Friday");
20            }
21            if(i == 6){
22                System.out.println("Saturday");
23            }
24            if(i == 7){
25                System.out.println("Sunday");
26            }
27        }
28    }
29 }
```



```
1 }
2 }
3 }
4 }
5 }
6 }
7 }
8 }
9 }
10 }
11 }
12 }
13 }
14 }
15 }
16 }
17 }
18 }
19 }
20 }
21 }
22 }
23 }
24 }
25 }
26 }
27 }
28 }
29 }
30 }
31 }
32 }
33 }
34 }
35 }
36 }
37 }
38 }
39 }
40 }
41 }
42 }
43 }
44 }
45 }
46 }
47 }
48 }
49 }
50 }
51 }
52 }
53 }
54 }
55 }
56 }
57 }
58 }
59 }
60 }
61 }
62 }
63 }
64 }
65 }
66 }
67 }
68 }
69 }
70 }
71 }
72 }
73 }
74 }
75 }
76 }
77 }
78 }
79 }
80 }
81 }
82 }
83 }
84 }
85 }
86 }
87 }
88 }
89 }
90 }
91 }
92 }
93 }
94 }
95 }
96 }
97 }
98 }
99 }
100 }
101 }
102 }
103 }
104 }
105 }
106 }
107 }
108 }
109 }
110 }
111 }
112 }
113 }
114 }
115 }
116 }
117 }
118 }
119 }
120 }
121 }
122 }
123 }
124 }
125 }
126 }
127 }
128 }
129 }
130 }
131 }
132 }
133 }
134 }
135 }
136 }
137 }
138 }
139 }
140 }
141 }
142 }
143 }
144 }
145 }
146 }
147 }
148 }
149 }
150 }
151 }
152 }
153 }
154 }
155 }
156 }
157 }
158 }
159 }
160 }
161 }
162 }
163 }
164 }
165 }
166 }
167 }
168 }
169 }
170 }
171 }
172 }
173 }
174 }
175 }
176 }
177 }
178 }
179 }
180 }
181 }
182 }
183 }
184 }
185 }
186 }
187 }
188 }
189 }
190 }
191 }
192 }
193 }
194 }
195 }
196 }
197 }
198 }
199 }
200 }
201 }
202 }
203 }
204 }
205 }
206 }
207 }
208 }
209 }
210 }
211 }
212 }
213 }
214 }
215 }
216 }
217 }
218 }
219 }
220 }
221 }
222 }
223 }
224 }
225 }
226 }
227 }
228 }
229 }
230 }
231 }
232 }
233 }
234 }
235 }
236 }
237 }
238 }
239 }
240 }
241 }
242 }
243 }
244 }
245 }
246 }
247 }
248 }
249 }
250 }
251 }
252 }
253 }
254 }
255 }
256 }
257 }
258 }
259 }
260 }
261 }
262 }
263 }
264 }
265 }
266 }
267 }
268 }
269 }
270 }
271 }
272 }
273 }
274 }
275 }
276 }
277 }
278 }
279 }
280 }
281 }
282 }
283 }
284 }
285 }
286 }
287 }
288 }
289 }
290 }
291 }
292 }
293 }
294 }
295 }
296 }
297 }
298 }
299 }
300 }
301 }
302 }
303 }
304 }
305 }
306 }
307 }
308 }
309 }
310 }
311 }
312 }
313 }
314 }
315 }
316 }
317 }
318 }
319 }
320 }
321 }
322 }
323 }
324 }
325 }
326 }
327 }
328 }
329 }
330 }
331 }
332 }
333 }
334 }
335 }
336 }
337 }
338 }
339 }
340 }
341 }
342 }
343 }
344 }
345 }
346 }
347 }
348 }
349 }
350 }
351 }
352 }
353 }
354 }
355 }
356 }
357 }
358 }
359 }
360 }
361 }
362 }
363 }
364 }
365 }
366 }
367 }
368 }
369 }
370 }
371 }
372 }
373 }
374 }
375 }
376 }
377 }
378 }
379 }
380 }
381 }
382 }
383 }
384 }
385 }
386 }
387 }
388 }
389 }
390 }
391 }
392 }
393 }
394 }
395 }
396 }
397 }
398 }
399 }
400 }
401 }
402 }
403 }
404 }
405 }
406 }
407 }
408 }
409 }
410 }
411 }
412 }
413 }
414 }
415 }
416 }
417 }
418 }
419 }
420 }
421 }
422 }
423 }
424 }
425 }
426 }
427 }
428 }
429 }
430 }
431 }
432 }
433 }
434 }
435 }
436 }
437 }
438 }
439 }
440 }
441 }
442 }
443 }
444 }
445 }
446 }
447 }
448 }
449 }
450 }
451 }
452 }
453 }
454 }
455 }
456 }
457 }
458 }
459 }
460 }
461 }
462 }
463 }
464 }
465 }
466 }
467 }
468 }
469 }
470 }
471 }
472 }
473 }
474 }
475 }
476 }
477 }
478 }
479 }
480 }
481 }
482 }
483 }
484 }
485 }
486 }
487 }
488 }
489 }
490 }
491 }
492 }
493 }
494 }
495 }
496 }
497 }
498 }
499 }
500 }
501 }
502 }
503 }
504 }
505 }
506 }
507 }
508 }
509 }
510 }
511 }
512 }
513 }
514 }
515 }
516 }
517 }
518 }
519 }
520 }
521 }
522 }
523 }
524 }
525 }
526 }
527 }
528 }
529 }
530 }
531 }
532 }
533 }
534 }
535 }
536 }
537 }
538 }
539 }
540 }
541 }
542 }
543 }
544 }
545 }
546 }
547 }
548 }
549 }
550 }
551 }
552 }
553 }
554 }
555 }
556 }
557 }
558 }
559 }
560 }
561 }
562 }
563 }
564 }
565 }
566 }
567 }
568 }
569 }
570 }
571 }
572 }
573 }
574 }
575 }
576 }
577 }
578 }
579 }
580 }
581 }
582 }
583 }
584 }
585 }
586 }
587 }
588 }
589 }
590 }
591 }
592 }
593 }
594 }
595 }
596 }
597 }
598 }
599 }
600 }
601 }
602 }
603 }
604 }
605 }
606 }
607 }
608 }
609 }
610 }
611 }
612 }
613 }
614 }
615 }
616 }
617 }
618 }
619 }
620 }
621 }
622 }
623 }
624 }
625 }
626 }
627 }
628 }
629 }
630 }
631 }
632 }
633 }
634 }
635 }
636 }
637 }
638 }
639 }
640 }
641 }
642 }
643 }
644 }
645 }
646 }
647 }
648 }
649 }
650 }
651 }
652 }
653 }
654 }
655 }
656 }
657 }
658 }
659 }
660 }
661 }
662 }
663 }
664 }
665 }
666 }
667 }
668 }
669 }
670 }
671 }
672 }
673 }
674 }
675 }
676 }
677 }
678 }
679 }
680 }
681 }
682 }
683 }
684 }
685 }
686 }
687 }
688 }
689 }
690 }
691 }
692 }
693 }
694 }
695 }
696 }
697 }
698 }
699 }
700 }
701 }
702 }
703 }
704 }
705 }
706 }
707 }
708 }
709 }
710 }
711 }
712 }
713 }
714 }
715 }
716 }
717 }
718 }
719 }
720 }
721 }
722 }
723 }
724 }
725 }
726 }
727 }
728 }
729 }
730 }
731 }
732 }
733 }
734 }
735 }
736 }
737 }
738 }
739 }
740 }
741 }
742 }
743 }
744 }
745 }
746 }
747 }
748 }
749 }
750 }
751 }
752 }
753 }
754 }
755 }
756 }
757 }
758 }
759 }
760 }
761 }
762 }
763 }
764 }
765 }
766 }
767 }
768 }
769 }
770 }
771 }
772 }
773 }
774 }
775 }
776 }
777 }
778 }
779 }
780 }
781 }
782 }
783 }
784 }
785 }
786 }
787 }
788 }
789 }
790 }
791 }
792 }
793 }
794 }
795 }
796 }
797 }
798 }
799 }
800 }
801 }
802 }
803 }
804 }
805 }
806 }
807 }
808 }
809 }
810 }
811 }
812 }
813 }
814 }
815 }
816 }
817 }
818 }
819 }
820 }
821 }
822 }
823 }
824 }
825 }
826 }
827 }
828 }
829 }
830 }
831 }
832 }
833 }
834 }
835 }
836 }
837 }
838 }
839 }
840 }
841 }
842 }
843 }
844 }
845 }
846 }
847 }
848 }
849 }
850 }
851 }
852 }
853 }
854 }
855 }
856 }
857 }
858 }
859 }
860 }
861 }
862 }
863 }
864 }
865 }
866 }
867 }
868 }
869 }
870 }
871 }
872 }
873 }
874 }
875 }
876 }
877 }
878 }
879 }
880 }
881 }
882 }
883 }
884 }
885 }
886 }
887 }
888 }
889 }
890 }
891 }
892 }
893 }
894 }
895 }
896 }
897 }
898 }
899 }
900 }
901 }
902 }
903 }
904 }
905 }
906 }
907 }
908 }
909 }
910 }
911 }
912 }
913 }
914 }
915 }
916 }
917 }
918 }
919 }
920 }
921 }
922 }
923 }
924 }
925 }
926 }
927 }
928 }
929 }
930 }
931 }
932 }
933 }
934 }
935 }
936 }
937 }
938 }
939 }
940 }
941 }
942 }
943 }
944 }
945 }
946 }
947 }
948 }
949 }
950 }
951 }
952 }
953 }
954 }
955 }
956 }
957 }
958 }
959 }
960 }
961 }
962 }
963 }
964 }
965 }
966 }
967 }
968 }
969 }
970 }
971 }
972 }
973 }
974 }
975 }
976 }
977 }
978 }
979 }
980 }
981 }
982 }
983 }
984 }
985 }
986 }
987 }
988 }
989 }
990 }
991 }
992 }
993 }
994 }
995 }
996 }
997 }
998 }
999 }
1000 }
```


7)2)

```

1  public class Week_Days {
2      public void week_except_today(){
3          for(int i=1; i<=7; i++){
4              if(i == 1){
5                  System.out.println("Monday");
6              }
7              if(i == 2){
8                  System.out.println("Tuuesday");
9              }
10             if(i == 3){
11                 System.out.println("Wednesday");
12             }
13             if(i == 4){
14                 System.out.println("Thursday");
15             }
16             if(i == 5){
17                 continue;
18             }
19             if(i == 6){
20                 System.out.println("Saturday");
21             }
22             if(i == 7){
23                 System.out.println("Sunday");
24             }
25         }
26     }
27 }

```

```

1  public static void main(String args[]){
2      Week_Days w=new Week_Days();
3      w.week_except_today();
4  }

```

```

//C:\Users\coditas\.jdk\openjdk-18.0.1\bin\java.exe "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.1.3\lib\ide
//Monday
//Tuuesday
//Wednesday
//Thursday
//Saturday
//Sunday

```

7)3)

```

package DAY_4_CORE_JAVA;

public class today_date {
    1 usage
    public void date(){
        for(int i=1;i<=22;i++){
            System.out.println(i);
            if(i==22){
                System.out.println("Today's Date " +i);
                break;
            }
        }
    }

    public static void main(String args[]){
        today_date dt=new today_date();
        dt.date();
    }
}

```

C:\Users\coditas\jdk\openjdk-18.0.1.1\bin\java.exe
"-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community
Edition 2022.1.3\lib\idea_rt.jar=49939:C:\Program
Files\JetBrains\IntelliJ IDEA Community Edition 2022.1.3\bin"
-Dfile.encoding=UTF-8 -classpath
"C:\Users\coditas\IdeaProjects\CORE JAVA_DAY
2\out\production\CORE JAVA_DAY 2"
DAY_4_CORE_JAVA.today_date

1
 2
 3
 4
 5
 6

7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22

Today's Date 22

Q:8) Draw the pattern:

ANS:8)

```
package DAY_4_CORE_JAVA;
import java.util.*;
public class Pattern {
    public static void main(String[] args) {
        // Declaring and initializing variable to

        int num = 5;

        int i = num, j;

        // Nested while loops
        // Outer loop

        // Till condition satisfied
        while (i > 0) {
            j = 0;
```

```

// cheking Condition check
while (j++ < num - i) {
    // Print whitespaces
    System.out.print(" ");
}

j = 0;

// Inner loop
// Condition check
while (j++ < (i * 2) - 1) {
    // Print star
    System.out.print("*");
}

// so next line
System.out.println();

// reversing the pyramid value
i--;
}
}

//C:\Users\coditas\.jdk\openjdk-18.0.1.1\bin\java.exe "-javaagent:C:\Program
Files\JetBrains\IntelliJ IDEA Community Edition
2022.1.3\lib\idea_rt.jar=49873:C:\Program Files\JetBrains\IntelliJ IDEA
Community Edition 2022.1.3\bin" -Dfile.encoding=UTF-8 -classpath
"C:\Users\coditas\IdeaProjects\CORE JAVA_DAY 2\out\production\CORE JAVA_DAY 2"
DAY_4_CORE_JAVA.Pattern
//*****
// *****
// *****
// ***
// *
//
//Process finished with exit code 0

```