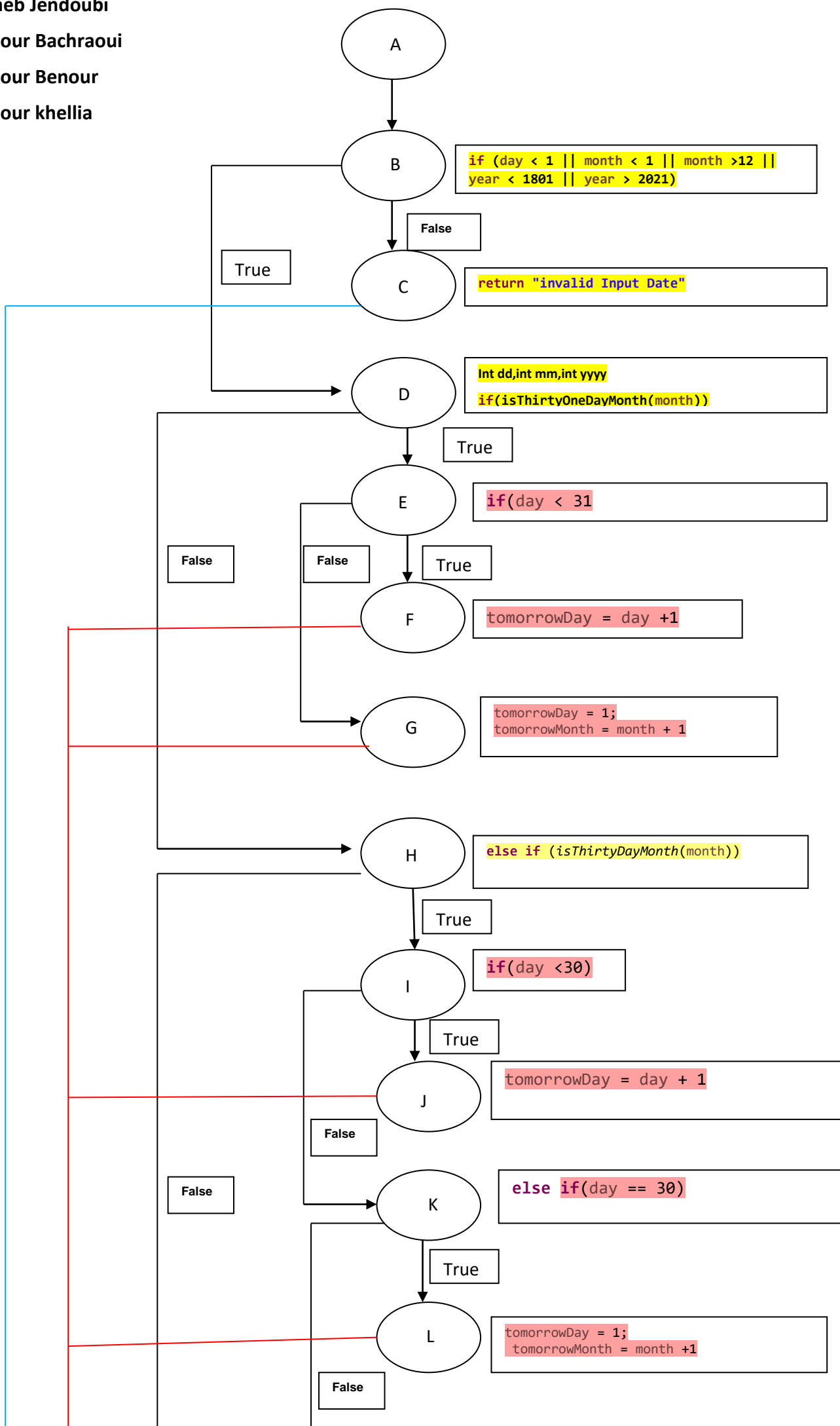
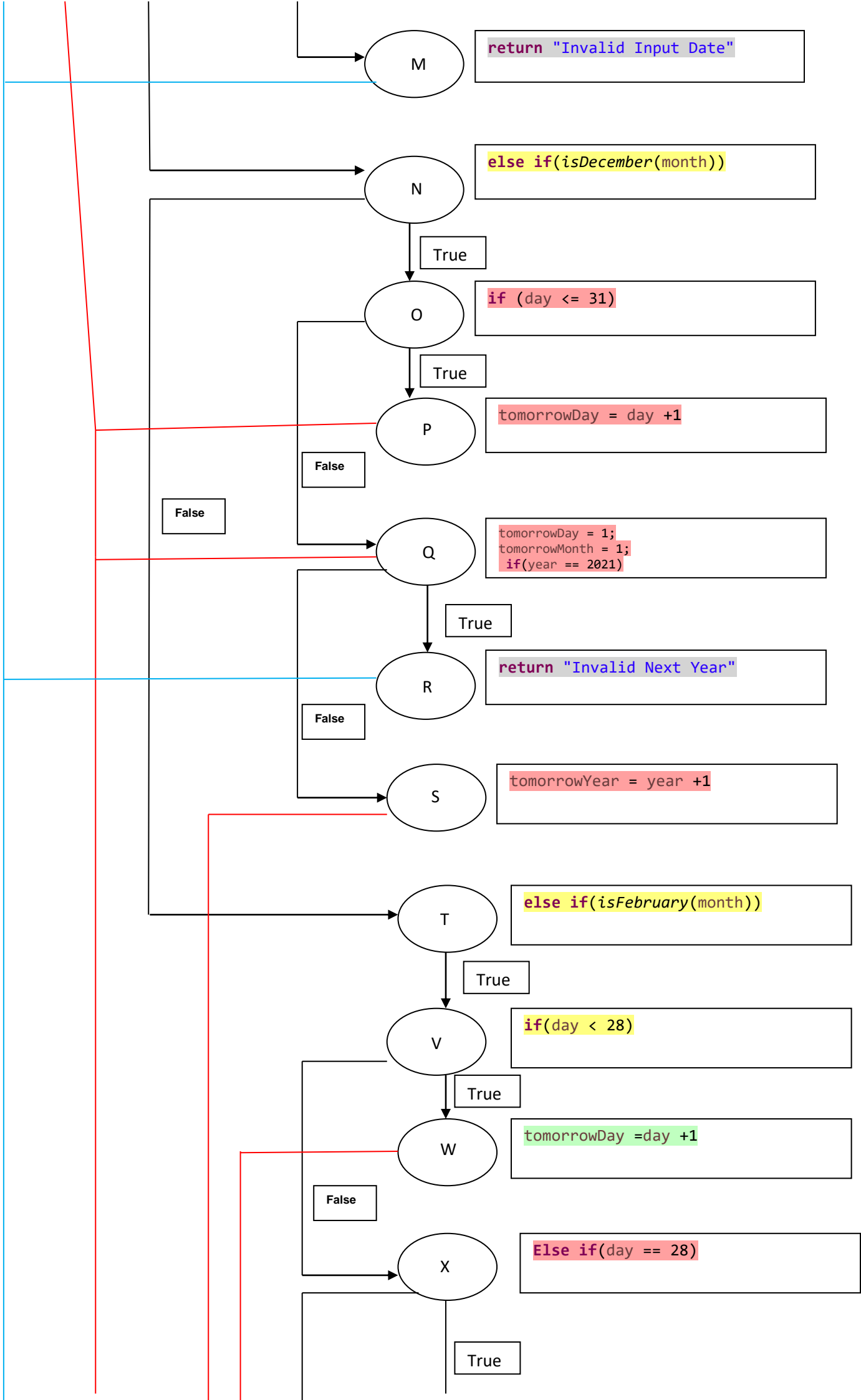
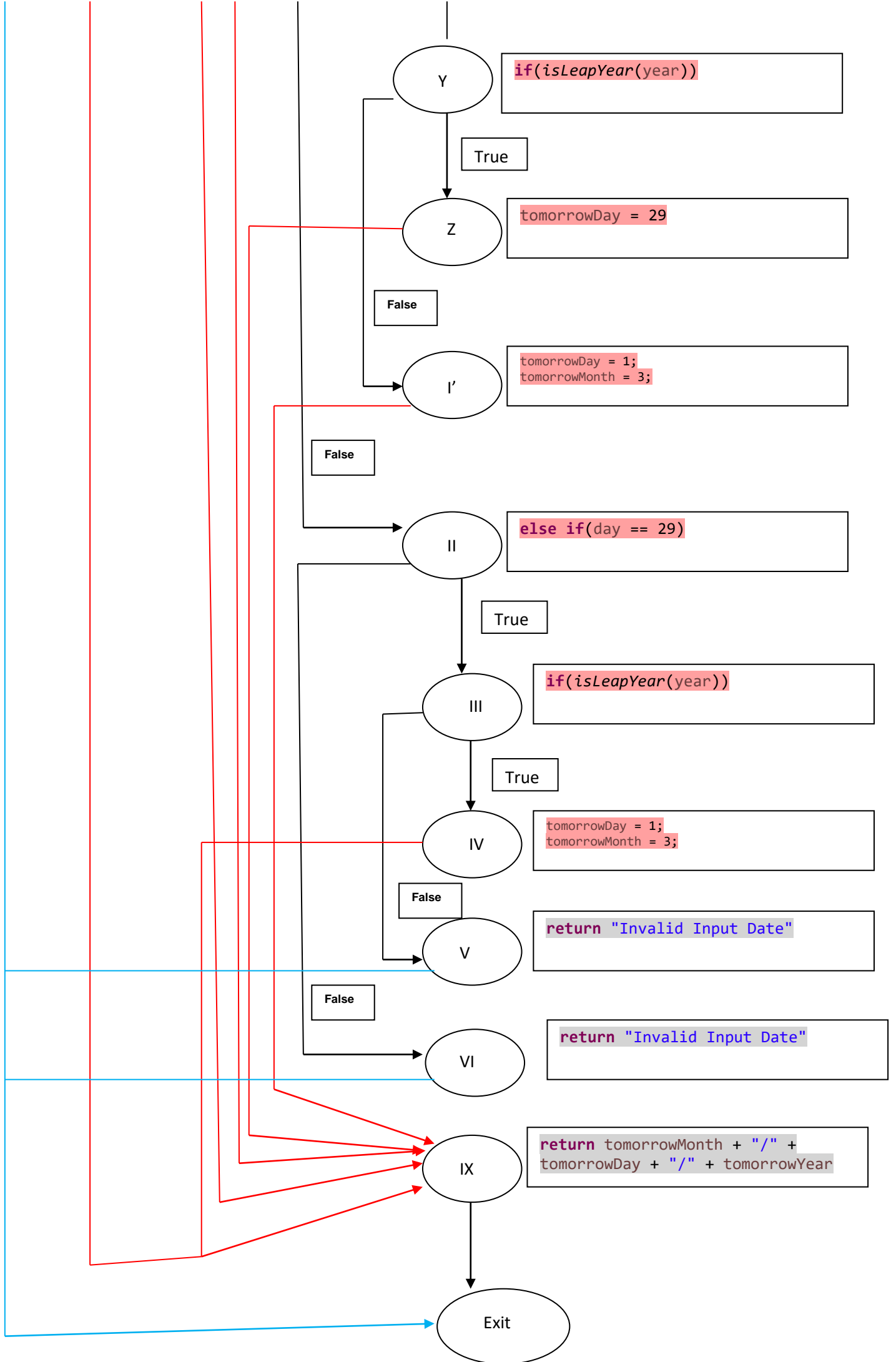


Iheb Jendoubi
Nour Bachraoui
Nour Benour
Nour khellia







Uses cases and coverage :

Test Case Id	day	month	year	Expected Result	Real Result	Path covered
1	0	1	2020	Invalid Input Date	Invalid Input Date	(A-C)-(exit)
2	31	5	2021	6/1/2021	6/1/2021	(A-D)-E-G-(IX)-(exit)
3	30	5	2021	6/31/2021	6/31/2021	(A-D)-E-F-(IX)-(exit)
4	29	4	2021	4/30/2021	4/30/2021	(A-D)-H-I-J-(IX)-(exit)
5	30	4	2021	5/1/2021	5/1/2021	(A-D)-H-I-K-L-(IX)-(exit)
6	31	4	2021	Invalid Input Date	Invalid Input Date	(A-D)-H-I-K-M-(exit)
7	28	12	2021	12/29/2021	12/29/2021	(A-D)-H-N-O-P-(IX)-(exit)
8	31	12	2021	Invalid Next Year	12/32/2021	(A-D)-H-N-O-P-(IX)-(exit)
9	42	1	2021	Invalid Input	2/1/2021	A-B-D-H
10	27	2	2021	2/28/2021	2/28/2021	A-B-D-H-N-T-V-W-(IX)-(exit)
11	28	2	2020(Leap year)	2/29/2021	2/29/2021	A-B-D-H-N-T-V-X-Y-Z-(IX)-(exit)
12	28	2	2021	3/1/2021	3/1/2021	A-B-D-H-N-T-V-X-Y-I'-(IX)-(exit)
13	29	2	2020	3/1/2020	3/1/2020	A-B-D-H-N-T-V-X-(II)-(III)-(IV)-(IX)-(exit)
14	29	2	2021	Invalid Input Date	Invalid Input Date	A-B-D-H-N-T-V-X-(II)-(III)-V-(exit)
15	30	2	2021	Invalid Input Date		A-B-D-H-N-T-V-X-(II)-(VI)-(exit)

Test case Junit report :

```
public class NextDateTest {
    NextDate date;

    @BeforeEach
    public void init() {
        date = new NextDate(0,5,1991);
    }

    @Test
    @DisplayName("--Testing run method--")
    public void runNextDateTest() {

        assertEquals("invalid Input Date",date.run(0,6,1991));
    }
}
```

NextDateTest (10 mai 2021 12:12:08)

Element	Coverage	Covered Instructio...	Missed Instructions	Total Instructions
LAB3	13,3 %	32	209	241
src	13,3 %	32	209	241
nextdate	5,0 %	11	209	220
NextDate.java	5,0 %	11	209	220
nextdateTest	100,0 %	21	0	21

Runs: 1/1 Errors: 0 Failures: 0

NextDateTest [Runner: JUnit 5] (0,041 s)
 --Testing run method-- (0,041 s)

Use case number 2 :

```
@Test
@DisplayName("--Testing use case number 2 --")
public void runOnUseCaseTwo() {
    date = new NextDate(5,31,2021);
    assertEquals("6/1/2021",date.run(5,31,2021));
}
```

Runs: 2/2 Errors: 0 Failures: 0

NextDateTest [Runner: JUnit 5] (0,021 s)
 --Testing run method-- (0,011 s)
 --Testing use case number 2 -- (0,010 s)

NextDateTest (10 mai 2021 12:20:15)

Element	Coverage	Covered Instructio...	Missed Instructions	Total Instructions
LAB3	40,1 %	103	154	257
src	40,1 %	103	154	257
nextdate	30,0 %	66	154	220
NextDate.java	30,0 %	66	154	220
nextdateTest	100,0 %	37	0	37

Test case 3 :

```
@Test
@DisplayName("--Testing use case number 3 --")
public void runOnUseCaseThree() {
    date = new NextDate(5,30,2021);
    assertEquals("5/31/2021",date.run(5,30,2021));
}
```

Runs: 3/3 Errors: 0 Failures: 0

NextDateTest [Runner: JUnit 5] (0,021 s)

- Testing run method-- (0,012 s)
- Testing use case number 3 -- (0,002 s)
- Testing use case number 2 -- (0,007 s)

NextDateTest (10 mai 2021 12:23:59)

Element	Coverage	Covered Instructio...	Missed Instructions	Total Instructions
LAB3	45,6 %	125	149	274
src	45,6 %	125	149	274
nextdate	32,3 %	71	149	220
NextDate.java	32,3 %	71	149	220
nextdateTest	100,0 %	54	0	54

Test Case 4 :

```
@Test
@DisplayName("--Testing use case number 4 --")
public void runOnUseCaseFour() {
    date = new NextDate(4,29,2021);
    assertEquals("4/30/2021",date.run(4,29,2021));
}
```

Runs: 4/4 Errors: 0 Failures: 0

NextDateTest [Runner: JUnit 5] (0,025 s)

- Testing run method-- (0,014 s)
- Testing use case number 4 -- (0,002 s)
- Testing use case number 3 -- (0,001 s)
- Testing use case number 2 -- (0,008 s)

NextDateTest (10 mai 2021 12:29:01)

Element	Coverage	Covered Instructio...	Missed Instructions	Total Instructions
LAB3	57,0 %	166	125	291
src	57,0 %	166	125	291
nextdate	43,2 %	95	125	220
NextDate.java	43,2 %	95	125	220
nextdateTest	100,0 %	71	0	71

Test Case 5 :

```
@Test
@DisplayName("--Testing use case number 5 --")
public void runOnUseCaseFive() {
    date = new NextDate(4,30,2021);
    assertEquals("5/1/2021",date.run(4,30,2021));
}
```

Runs: 5/5 Errors: 0 Failures: 0

NextDateTest [Runner: JUnit 5] (0,029 s)

- Testing run method-- (0,018 s)
- Testing use case number 5 -- (0,001 s)
- Testing use case number 4 -- (0,001 s)
- Testing use case number 3 -- (0,002 s)
- Testing use case number 2 -- (0,007 s)

NextDateTest (10 mai 2021 12:38:02)

Element	Coverage	Covered Instructio...	Missed Instructions	Total Instructions
LAB3	62,7 %	193	115	308
src	62,7 %	193	115	308
nextdate	47,7 %	105	115	220
NextDate.java	47,7 %	105	115	220
nextdateTest	100,0 %	88	0	88

TestCase 6 :

```

@Test
@DisplayName("--Testing use case number 6--")
public void runOnUseCaseSix() {
    date = new NextDate(4,31,2021);
    assertEquals("Invalid Input Date",date.run(4,31,2021));
}

```

```

NextDateTest [Runner: JUnit 5] (0,081 s)
--Testing run method-- (0,042 s)
--Testing use case number 5 -- (0,004 s)
--Testing use case number 4 -- (0,004 s)
--Testing use case number 3 -- (0,004 s)
--Testing use case number 6-- (0,004 s)
--Testing use case number 2 -- (0,023 s)

```

LAB3	65,2 %	212	113	325
src	65,2 %	212	113	325
nextdate	48,6 %	107	113	220
NextDate.java	48,6 %	107	113	220
nextdateTest	100,0 %	105	0	105

```

public void runOnUseCaseSeven() {
    date = new NextDate(12,28,2021);
    assertEquals("12/29/2021",date.run(12,28,2021));
}

```

```

NextDateTest [Runner: JUnit 5] (0,030 s)
--Testing run method-- (0,018 s)
--Testing use case number 5 -- (0,000 s)
--Testing use case number 4 -- (0,002 s)
--Testing use case number 7-- (0,000 s)
--Testing use case number 3 -- (0,000 s)
--Testing use case number 6-- (0,000 s)
--Testing use case number 2 -- (0,010 s)

```

Element	Coverage	Covered Instructio...	Missed Instructions	Total Instructions
LAB3	74,9 %	256	86	342
src	74,9 %	256	86	342
nextdate	60,9 %	134	86	220
NextDate.java	60,9 %	134	86	220
nextdateTest	100,0 %	122	0	122

TestCase 8 :

```
@Test
@DisplayName("--Testing use case number 8--")
public void runOnUseCaseEight() {
    date = new NextDate(12,31,2021);
    assertEquals("Invalid Next Year",date.run(12,31,2021));
}
```

Runs:	8/8	Errors:	0	Failures:	1
NextDateTest [Runner: JUnit 5] (0,099 s)					
--Testing run method-- (0,030 s)					
--Testing use case number 5 -- (0,000 s)					
--Testing use case number 4 -- (0,008 s)					
--Testing use case number 8-- (0,021 s)					
--Testing use case number 7-- (0,000 s)					
--Testing use case number 3 -- (0,010 s)					
--Testing use case number 6-- (0,000 s)					
--Testing use case number 2 -- (0,028 s)					

Failure Report :

runOnUseCaseEight(nextdateTest.NextDateTest)	
Expected	Actual
1 Invalid Next Year	1 12/32/2021

the bug :

```
if (day <= 31) //if the day is not 31, just increment the next day
    tomorrowDay = day +1;
```

Test Case 9 :

```
@Test
@DisplayName("--Testing use case number --")
public void runOnUseCaseNinet() {
    date = new NextDate(1,42,2021);
    assertEquals("invalid Input Date",date.run(1,42,2021));
}
```

Runs:	9/9	Errors:	0	Failures:	1
NextDateTest [Runner: JUnit 5] (0,053 s)					
--Testing run method-- (0,015 s)					
--Testing use case number 5 -- (0,016 s)					
--Testing use case number 4 -- (0,000 s)					
--Testing use case number 8-- (0,000 s)					
--Testing use case number -- (0,000 s)					
--Testing use case number 7-- (0,016 s)					
--Testing use case number 3 -- (0,000 s)					
--Testing use case number 6-- (0,000 s)					
--Testing use case number 2 -- (0,006 s)					

runOnUseCaseNinet(nextdateTest.NextDateTest)	
Expected	Actual
1 invalid Input Date	1 2/1/2021

TestCase 10:

```
@Test
@DisplayName("--Testing use case number 10 --")
public void runOnUseCaseTen() {
    date = new NextDate(2,27,2021);
    assertEquals("2/28/2021",date.run(2,27,2021));
}
```

Runs:	10/10	Errors:	0	Failures:	2
NextDateTest [Runner: JUnit 5] (0,038 s)					
--Testing run method-- (0,015 s)					
--Testing use case number 5 -- (0,000 s)					
--Testing use case number 4 -- (0,007 s)					
--Testing use case number 8-- (0,000 s)					
--Testing use case number -- (0,000 s)					
--Testing use case number 7-- (0,000 s)					
--Testing use case number 3 -- (0,000 s)					
--Testing use case number 6-- (0,016 s)					
--Testing use case number 10 -- (0,000 s)					
--Testing use case number 2 -- (0,000 s)					

Element	Coverage	Covered Instructio...	Missed Instructions	Total Instructions
LAB3	78,1 %	307	86	393
src	78,1 %	307	86	393
nextdate	69,1 %	152	68	220
NextDate.java	69,1 %	152	68	220
nextdateTest	89,6 %	155	18	173

TestCase 11 :

```
@Test
@DisplayName("--Testing use case number 11 --")
public void runOnUseCaseEleven() {
    date = new NextDate(2,28,2020);
    assertEquals("2/29/2020",date.run(2,28,2020));
}
```

Runs:	11/11	Errors:	0	Failures:	2
NextDateTest [Runner: JUnit 5] (0,044 s)					
--Testing use case number 11 -- (0,016 s)					
--Testing run method-- (0,001 s)					
--Testing use case number 5 -- (0,001 s)					
--Testing use case number 4 -- (0,001 s)					
--Testing use case number 8-- (0,006 s)					
--Testing use case number -- (0,002 s)					
--Testing use case number 7-- (0,002 s)					
--Testing use case number 3 -- (0,002 s)					
--Testing use case number 6-- (0,001 s)					
--Testing use case number 10 -- (0,001 s)					
--Testing use case number 2 -- (0,007 s)					

NextDateTest (11 mai 2021 15:27:59)






Element	Coverage	Covered Instructio...	Missed Instructions	Total Instructions
LAB3	83,7 %	343	67	410
src	83,7 %	343	67	410
nextdate	77,7 %	171	49	220
NextDate.java	77,7 %	171	49	220
nextdateTest	90,5 %	172	18	190

Test Case 12 :

```
@Test
@DisplayName("--Testing use case number 12 --")
public void runOnUseCaseTwelve() {
    date = new NextDate(2,28,2021);
    assertEquals("3/1/2021",date.run(2,28,2021));
}
```

Runs:	12/12	Errors:	0	Failures:	2
NextDateTest [Runner: JUnit 5] (0,067 s)					
--Testing use case number 11 -- (0,027 s)					
--Testing use case number 12 -- (0,001 s)					
--Testing run method-- (0,003 s)					
--Testing use case number 5 -- (0,001 s)					
--Testing use case number 4 -- (0,003 s)					
--Testing use case number 8-- (0,011 s)					
--Testing use case number -- (0,002 s)					
--Testing use case number 7-- (0,001 s)					
--Testing use case number 3 -- (0,002 s)					
--Testing use case number 6-- (0,001 s)					
--Testing use case number 10 -- (0,001 s)					
--Testing use case number 2 -- (0,012 s)					

NextDateTest (11 mai 2021 15:31:43)

Element	Coverage	Covered Instructio...	Missed Instructions	Total Instructions
LAB3	 85,9 %	367	60	427
src	 85,9 %	367	60	427
nextdate	 80,9 %	178	42	220
NextDate.java	 80,9 %	178	42	220
nextdateTest	 91,3 %	189	18	207

Test Case 13 :

```
@Test
@DisplayName("--Testing use case number 13 --")
public void runOnUseCaseThirteen() {
    date = new NextDate(2,29,2020);
    assertEquals("3/1/2020",date.run(2,29,2020));
}
```

Runs:	13/13	Errors:	0	Failures:	2
NextDateTest [Runner: JUnit 5] (0,054 s)					
--Testing use case number 11 -- (0,017 s)					
--Testing use case number 12 -- (0,004 s)					
--Testing use case number 13 -- (0,001 s)					
--Testing run method-- (0,001 s)					
--Testing use case number 5 -- (0,000 s)					
--Testing use case number 4 -- (0,003 s)					
--Testing use case number 8-- (0,011 s)					
--Testing use case number -- (0,002 s)					
--Testing use case number 7-- (0,002 s)					
--Testing use case number 3 -- (0,001 s)					
--Testing use case number 6-- (0,001 s)					
--Testing use case number 10 -- (0,001 s)					
--Testing use case number 2 -- (0,010 s)					

NextDateTest (11 mai 2021 15:36:49)

Element	Coverage	Covered Instructio...	Missed Instructions	Total Instructions
LAB3	89,0 %	395	49	444
src	89,0 %	395	49	444
nextdate	85,9 %	189	31	220
NextDate.java	85,9 %	189	31	220
nextdateTest	92,0 %	206	18	224

Test Case 14 :

```

@Test
@DisplayName("--Testing use case number 14 --")
public void runOnUseCaseFourteen() {
    date = new NextDate(2,29,2021);
    assertEquals("Invalid Input Date",date.run(2,29,2021));
}

```

Runs: 14/14	Errors: 0	Failures: 2
NextDateTest [Runner: JUnit 5] (0,043 s)		
--Testing use case number 11 -- (0,015 s)		
--Testing use case number 14 -- (0,001 s)		
--Testing use case number 12 -- (0,001 s)		
--Testing use case number 13 -- (0,001 s)		
--Testing run method-- (0,001 s)		
--Testing use case number 5 -- (0,001 s)		
--Testing use case number 4 -- (0,001 s)		
--Testing use case number 8-- (0,007 s)		
--Testing use case number -- (0,001 s)		
--Testing use case number 7-- (0,001 s)		
--Testing use case number 3 -- (0,001 s)		
--Testing use case number 6-- (0,001 s)		
--Testing use case number 10 -- (0,001 s)		
--Testing use case number 2 -- (0,008 s)		

NextDateTest (11 mai 2021 15:41:12)

Element	Coverage	Covered Instructio...	Missed Instructions	Total Instructions
LAB3	89,8 %	414	47	461
src	89,8 %	414	47	461
nextdate	86,8 %	191	29	220
NextDate.java	86,8 %	191	29	220
nextdateTest	92,5 %	223	18	241

Test Case 15 :






```

@Test
@DisplayName("--Testing use case number 15 --")
public void runOnUseCaseFithteen() {
    date = new NextDate(2,30,2021);
    assertEquals("Invalid Input Date",date.run(2,30,2021));
}

```

Runs: 15/15	Errors: 0	Failures: 2
NextDateTest [Runner: JUnit 5] (0,045 s)		
--Testing use case number 11 -- (0,015 s)		
--Testing use case number 14 -- (0,001 s)		
--Testing use case number 12 -- (0,002 s)		
--Testing use case number 13 -- (0,001 s)		
--Testing run method-- (0,000 s)		
--Testing use case number 5 -- (0,000 s)		
--Testing use case number 4 -- (0,002 s)		
--Testing use case number 8-- (0,006 s)		
--Testing use case number -- (0,000 s)		
--Testing use case number 7-- (0,001 s)		
--Testing use case number 3 -- (0,002 s)		
--Testing use case number 6-- (0,001 s)		
--Testing use case number 10 -- (0,000 s)		
--Testing use case number 2 -- (0,001 s)		
--Testing use case number 15 -- (0,008 s)		

NextDateTest (11 mai 2021 15:45:01)

Element	Coverage	Covered Instructio...	Missed Instructions	Total Instructions
▼ LAB3	 91,2 %	436	42	478
▼ src	 91,2 %	436	42	478
▼ nextdate	 89,1 %	196	24	220
> NextDate.java	 89,1 %	196	24	220
> nextdateTest	 93,0 %	240	18	258

Failures Report :

Test Id	Method Under Test	Description of the failures	Expected Result	Actual Result	Remarks
1	<code>public String run(int month, int day, int year)</code>	When the input is (1/42/2021) the output should be Invalid date Input because there's no day =42 , but the actual output is (2/1/2021)	Invalid Input Date	2/1/2021	Severe Problem
2	<code>public String run(int month, int day, int year)</code>	When the input is (31/12/2021) the output should be Invalid Next Year but the actual output is (32/12/2021)	Invalid Next Year	31/12/2021	Sever Problem