Fluent Wait.

The Fluent Wait in Selenium is used to define maximum time for the web driver to wait for a condition, as well as the frequency with which we want to check the condition before throwing an "ElementNotVisibleException" exception. It checks for the web element at regular intervals until the object is found or timeout happens.

Frequency: Setting up a repeat cycle with the time frame to verify/check the condition at the regular interval of time

Let's consider a scenario where an element is loaded at different intervals of time. The element might load within 10 seconds, 20 seconds or even more then that if we declare an explicit wait of 20 seconds. It will wait till the specified time before throwing an exception. In such scenarios, the fluent wait is the ideal wait to use as this will try to find the element at different frequency until it finds it or the final timer runs out.

Syntax:

```
Wait wait = new FluentWait(WebDriver reference)
.withTimeout(Duration.ofSeconds(SECONDS)).  30
.pollingEvery(Duration.ofSeconds(SECONDS)).  5
.ignoring(Exception.class);
```

Example

```
Wait<WebDriver> wait = new FluentWait<WebDriver>(driver)
        .withTimeout(30, TimeUnit.SECONDS)
        .pollingEvery(5, TimeUnit.SECONDS)
        .ignoring(NoSuchElementException.class);
```

In the above example, we are declaring a fluent wait with the timeout of 30 seconds and the frequency is set to 5 seconds by ignoring "NoSuchElementException"

Program :

```
package StartPatternProgram;

public class Prog1 {

        public static void main(String[] args) {

                //***  row = 2 col = 3
                //***
//              System.out.print("*");

                for(int row=1;row<=2;row++)  //row=3 3<=2
                {
                        for(int col=1;col<=3;col++)  //col=4 4<=3
```

```
                {
                        System.out.print("*");   //***
                                                                        //***
                }
                System.out.println();
        }
    }

}
```

Program :

```
package StartPatternProgram;

public class Prog2 {
//111
//222
    public static void main(String[] args) {


//          for(int row=1;row<=2;row++)  //row=3 3<=2
//          {
//              for(int col=1;col<=3;col++)  //col=4 4<=3
//              {
//                  System.out.print(row);   //*** 111
//                                                                      //*** 222
//              }
//              System.out.println();
//          }

            //123
            //123
            for(int row=1;row<=2;row++)  //row=3 3<=2
            {
                for(int col=1;col<=3;col++)  //col=4 4<=3
                {
                    System.out.print(col);   //***
                                                                        //***
                }
                System.out.println();
            }

    }

}
```

Program :

```
package StartPatternProgram;

public class Prog3 {
//*
//**
//***

	public static void main(String[] args) {

		int star=1,space=2;

		for(int row=1;row<=3;row++)  //row=1
		{
			for(int i=1;i<=star;i++)
			{
				System.out.print("*");
			}
			for(int j=1;j<=space;j++)
			{
				System.out.print(" ");		//*
			}
			System.out.println();
			star++;
			space--;
		}




	}

}
```

Program :

```
package StartPatternProgram;

public class Prog4 {
//    *
//   ***
//  *****
// *******
//*********
	public static void main(String[] args) {

		int star=1,space=4;
```

```
		for(int row=1;row<=5;row++)
		{
			for(int i=1;i<=space;i++)
			{
				System.out.print(" ");
			}
			for(int j=1;j<=star;j++)
			{
				System.out.print("*");
			}
			System.out.println();
			space--;
			star = star + 2;
		}



	}

}
```

Program :

```
package StartPatternProgram;

public class Prog5 {
//    *
//   **
//  ***
// ****
//*****
	public static void main(String[] args) {

		int star=1,space=4;

		for(int row=1;row<=5;row++)
		{
			for(int i=1;i<=space;i++)
			{
				System.out.print(" ");
			}
			for(int j=1;j<=star;j++)
			{
				System.out.print("*");
			}
			System.out.println();
			star++;
			space--;
		}
```

```
	}

}
```

Program :

```
package StartPatternProgram;

public class Prog6 {
//*****
// ***
//  *
	public static void main(String[] args) {

		int star=5,space=0;

		for(int row=1;row<=3;row++)
		{
			for(int j=1;j<=space;j++)
			{
				System.out.print(" ");
			}
			for(int i=1;i<=star;i++)
			{
				System.out.print("*");
			}
			System.out.println();
			star=star-2;
			space++;
		}
	}
}
//Manual-1,2 SQL API Core Java, Selenium, FW
//Project1 and 2
//Unix, Start Pattern, Logical Prog (Complementry)

//QH, Qulys, Forti Net  (20-2 Prog = 18)
```