**AWT / APPLET / SWING**

**AWT** stands for Abstract Window Toolkit.

It is a platform-dependent API to develop GUI (Graphical User Interface) or window-based applications in Java.

It is heavy-weight in use because it is generated by the system’s host operating system.

It contains a large number of classes and methods, which are used for creating and managing GUI.

**Applet** is a Java program that can be embedded into a web page. It runs inside the web browser and works at client side. An applet is embedded in an HTML page using the APPLET or OBJECT tag and hosted on a web server.

Applets are used to make the web site more dynamic and entertaining.

All applets are sub-classes (either directly or indirectly) of java.applet.Applet class.

Applets are not stand-alone programs. Instead, they run within either a web browser or an applet viewer. JDK provides a standard applet viewer tool called applet viewer.

**Swing** in Java is a lightweight GUI toolkit which has a wide variety of widgets for building optimized window based applications.

It is a part of the JFC( Java Foundation Classes). It is build on top of the AWT API and entirely written in java.

It is platform independent unlike AWT and has lightweight components.

It becomes easier to build applications since we already have GUI components like button, checkbox etc. This is helpful because we do not have to start from the scratch.

**Throwback of making GUI application:**  
Java was launched on 23-Jan-1996(JDK 1.0) and at that time it only supported CUI(Character User Interface) application. But in 1996 VB(Visual Basic) of Microsoft was preferred for GUI programming. So the Java developers in hurry(i.e within 7 days) have given the support for GUI from Operating System(OS). Now, the components like button, etc. were platform-dependent(i.e in each platform there will be different size, shape button). But they did the intersection of such components from all platforms and gave a small library which contains these intersections and it is available in AWT(Abstract Window Toolkit) technology but it doesn’t have advanced features like dialogue box, etc.

Now to run Applet, java needs a browser and at that time only “Internet Explorer” was there of Microsoft but Microsoft believes in monopoly. So “SUN Micro-System”(the company which developed Java) contracted with other company known as “Netscape”(which developed Java Script) and now the “Netscape” company is also known as “Mozilla Firefox” which we all know is a browser. Now, these two companies have developed a technology called “SWING” and the benefit is that the SWING components are produced by Java itself. Therefore now it is platform-independent as well as some additional features have also been added which were not in AWT technology. So we can say that SWING is much more advanced as compared to AWT technology.

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Applets are not used now a days as commonly as it was during its initial phases. Earlier, applets were a good way to embed java code into browsers and there were hardly any alternatives available.

However, in todays world we have some really good and efficient alternatives available. HTML 5 is one of such alternatives which is killing applets. There are many more you can search on google. I think Unity is also a good one.

So yes, applets are dying. Whether we should stop coding in applets or not depends on the requirement. However, it is recommended to use the latest technology to develop applications since old technology might go out of support at any time. Apart from that applets are rarely used now a days.

So why waste time on something of the past. Use the latest technology which are easier to use, with many additional functionalities, far better visual appearance and better performamce.

At the end of the day it is your choice whether to use applets or not. Nobody is going to kill you for that. But why would you want to use something which is no longer used, when you can use something which is faster, efficient and easier.

Hope I could clear some doubts.