What is Applet ?

Applets a re small java program that are used for the internet. They are stored on an Internet Server, transported over the Internet and automatically installed and executed as a part of a Webpage on the client machine. Applets can perform arithmetic operation, display graphics, play sounds, accept user inputs, create animations and support interactive games. Before the introduction of applets, web pages were not as interactive and dynamic as today.

After an applet arise the client machine via a web page, it has a very limited access to the resources of that machine and so, it can run several GUI applications without introducing the risk of viruses.

Write the procedure of setting foreground and background colors in an applet.

The background color of an applet can be changed by — setBackground(Color.c);

The foreground color (color of the text on the applet) can be enhanced by — setForeground(Color.c);

where c is any valid color constant of the color class.

For ex.

Color.blue; Color.red; Color.cyan; Color.pink; Color.black; etc.

Write down Applet life cycle.

Thought out its life time an applet passes through the following stage.

1. Initialization.
2. Running.
3. Idle.
4. Dead.

1. **Initialization Stage :-** An applet is initialized when it is first loaded in to a web browser. It is achieved by the init() method.
2. **Running Stage :-** An applet enters the running stage when the stage method is called. The start method is called automatically by the init() method. The start() is also called when an applet is reloaded in the web browser. That is when an applet returns to running stage from an Idle stage.
3. **Idle Stage :-** An applet enters into the idle stage when the stop() method is called. The stop() is called when the web browser leaves the applet temporarily.
4. **Dead Stage :-** An applet enters the dead stage when the destroy() method is called. The destroy() method is called when the web browser quits the applet.

Write down main Applet Methods.

An applet contains several methods line init(), start(), paint(), destroy(), repaint(). Among these simple applets does not need to override init(), start(), stop() and destroy(). The only method that ernoy applet should override is the paint(). But complex real life applets need to override all of the above method.
The above methods are called in the following sequence :-

1. init() ->
    - Called once for all when the applet is loaded.
    - Create objects needed by the applet, initialized variables, set background and foreground colors, load images etc. within init().
2. start() ->
    - Called after init() to start the applet.
    - Also called to restart an applet after it has been stopped.
    - Create threads that will control the applet.
3. paint() ->
    - Calls after the applet being execution.
    - Called when ever the output of the applet is to be redrawn or up dated.
4. repaint ->
    - repaint() is actually called to invoke the paint method because paint can't be called explicitly.
5. stop() ->
    - Called when the browser leaves the webpage containing the applet.
    - Threads that don’t need to run when the applet has been stopped are stopped rare.
6. destroy() ->
    - Called when the applet is removed from the memory.
    - Terminates all threads rare.
    - The stop() is called every time the destroy() is called.