EGG---> Caterpiller ---> Pupa ----> Butterfly

Fertilized egg ----> Foetus ----> baby ---> child --->teenager ---> adult ----> old age --->death

* Revision control, also known as version control or source control is the management of changes to documents, programs, and other collections of information.
* In software engineering, version control is a practice that tracks and provides control over changes to source code. Software developers use version control software (or tool) to maintain documentation and configuration files as well as source code.
* Changes are usually identified by a number, termed as “version number", or simply “version ".

For example: an initial version of a source file is " version 1" and when the first change is made & the source file checked in to version control tool , the version changes to " version 2" and so on.

* Each version is associated with a timestamp and the person making the change.
* Versions can be compared, restored, and can be merged.

Some of the Revision control Softwares are

CVS (1990) Subversion (2000) [Free/open-source]

ClearCase (1992) CMVC (1994) Visual SourceSafe (1994) Perforce (1995) StarTeam (1995) Rational Team Concert (2008) [Proprietary]

**Common Vocabulary**

**Repository**

The repository is where source files current and historical data are stored.

**Checkout**

check-out is the act of creating a local working copy from the repository. While checkout a user may specify a specific revision or obtain the latest.

**Checkin(Commit)**

checkin is the action of writing or merging the changes made in the working copy back to the repository. Whenever user perform this action a new version of the file is created

**File locking**

The simplest method of preventing "concurrent access" problems involves locking files so that only one developer at a time has write access to the central "repository" copies of those files. Once one developer "checks out" a file, others can read that file, but no one else may change that file until that developer "checks in" the updated version (or cancels the checkout). **It is dependent on version control software**.

**Conflict**

A conflict occurs when different parties make changes to the same document, and the system is unable to reconcile the changes. A user must resolve the conflict by combining the changes, or by selecting one change in favour of the other.

**Update**

An update (or sync) merges changes made in the repository (by other people, for example) into the local working copy.[6]

**Working copy**

The working copy is the local copy of files from a repository, at a specific time or revision. All work done to the files in a repository is initially done on a working copy.

**Merge**

A merge is an operation in which two sets of changes are applied to a file.

**Tag**

A tag or label refers to an important snapshot in time, consistent across many files. These files at that point may all be tagged with a user-friendly, meaningful name or revision number. See baselines, labels and tags.

**Trunk**

The unique line of development that is not a branch

**Branch**

A set of files under version control may be branched or forked at a point in time so that, from that time forward, two copies of those files may develop at different speeds or in different ways independently of each other

