VOLUNTEER COMPUTING
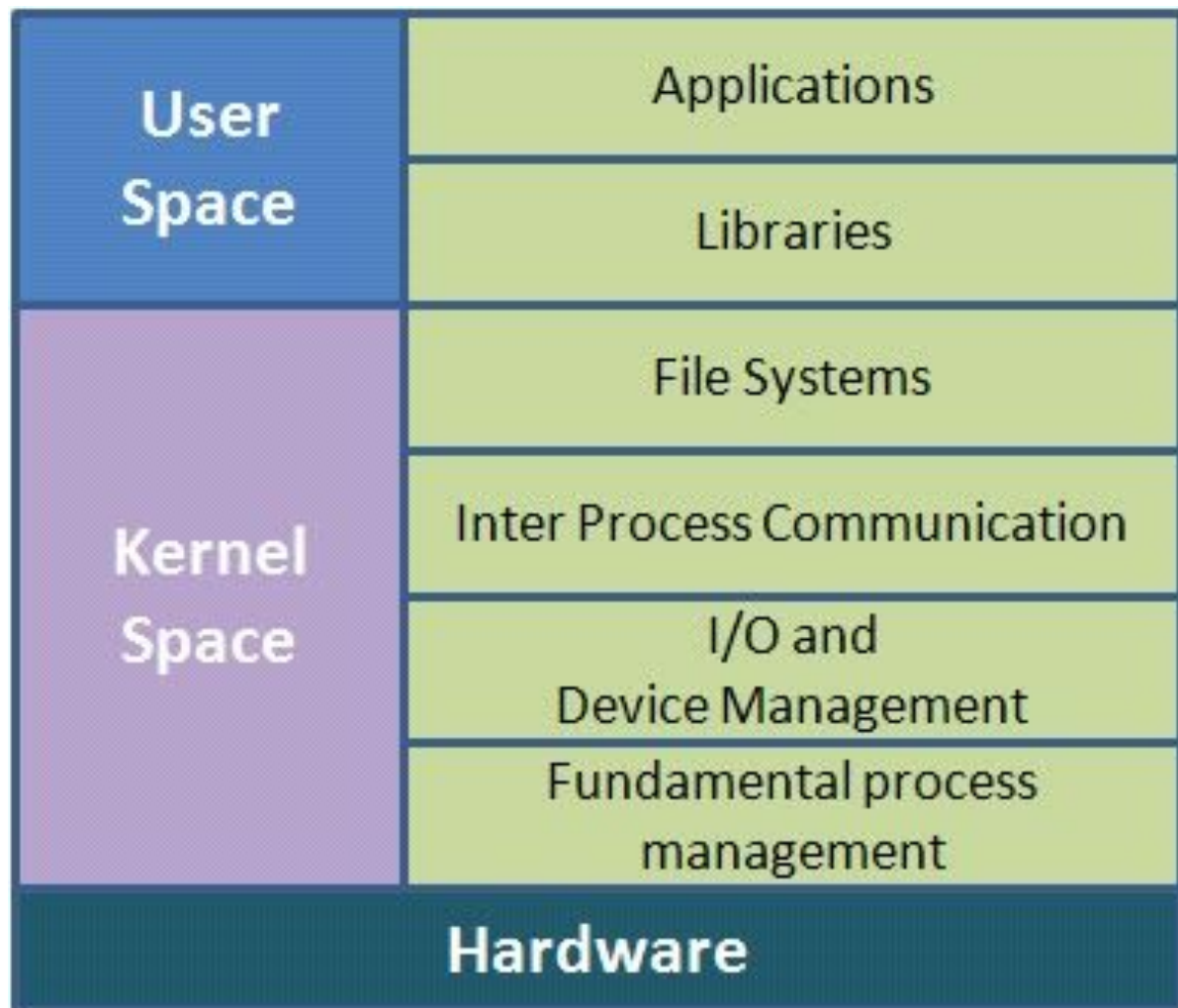
ITC-134 INTO TO SOFTWARE DEV AND VERSIONING

How does it work- technology behind it:

Abstract Introduction to Volunteer Computing: To begin to understand volunteer computing one must first understand; computing. That volunteer computing uses more than one computer. By the use of other computer resources to connect more computers and their resources to form a supercomputer. What are the different types of computing? What are the resources? What is Object-oriented programming? and What is Distributed Memory? Volunteer computing includes Grid, Cloud, Utility, Distributed and Cluster computing. With Object-oriented program, objects and resources can be related. To then follow the use of distributed memory and hard disk resources along with general resources of the CPU.

Computing

Definition: Is any activity that uses computers to manage, process, and communicate information. It includes development of both hardware and software.

Credit: google inc. search; computing.

User Space	Applications
	Libraries

Kernel Space	File Systems
	Inter Process Communication
	I/O and Device Management
	Fundamental process management

Hardware

Computer Resources

Volunteer Computing makes use of the entire computers resources. Those resources are devices connected to a computer. Internal system parts are a resource. Things like files, file handles, network sockets in a folder, and memory areas. For example, new web pages are memory areas when saved to a folder. Using process IDs and socket files are some of the uses of resources in cloud computing.

Computer Resources
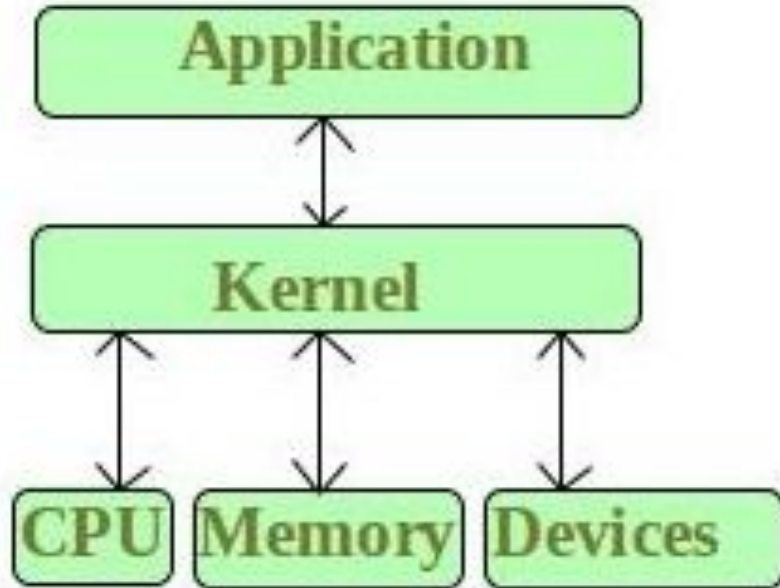
General Resources

Volunteer Computing makes use of general resources. CPU and Multiple CPU motherboards having Random-access memory and virtual memory. Utilizing hard disk drives and Cache or Cache space.   Network bandwidth is a resource to be considered. Java scripts input/output operations using DOM or Document Object Model. Uses Objects that are also resources and memory spaces.

Credit: https://en.wikipedia.org/wiki/System_resource

Object-oriented programming
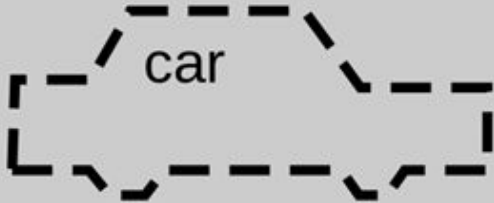
Object-oriented programming

Resources are encapsulated into objects.   Objects are used to write programs. Javascript programming using HTML protocol. Both have resources as objects.   Some programming languages use file objects that have the (value of a file descriptor or file handle).
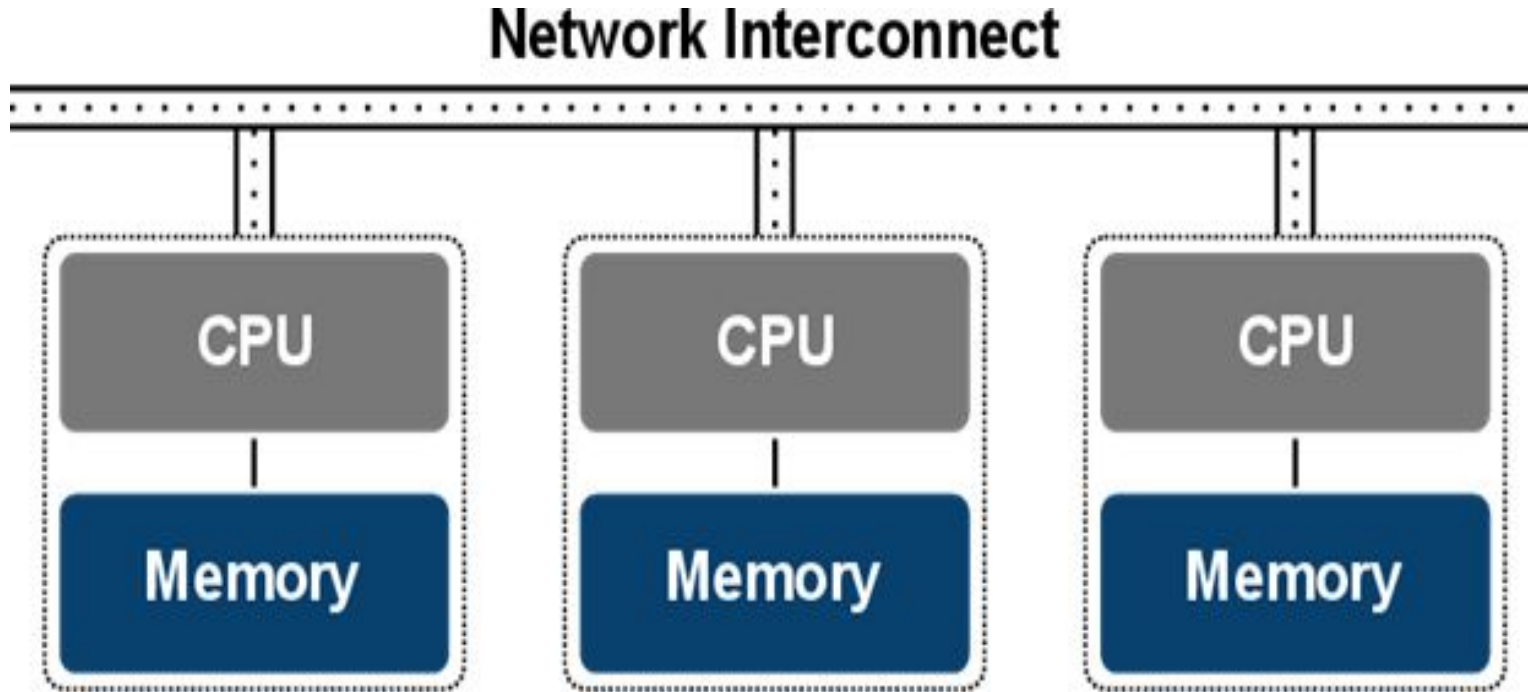
Different Types of Computing

Grid,

Cloud,

Utility,

Distributed and Cluster computing.
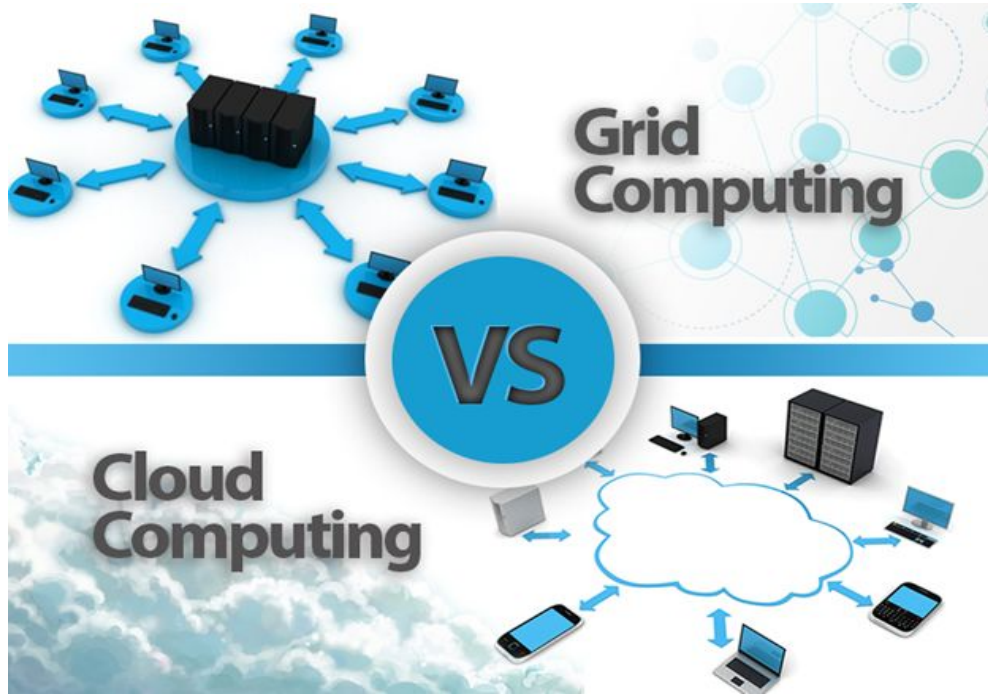
Distributed Memory

Distributed Memory

Volunteer Computing makes use of a resource called Distributed Memory. For example javascript uses "web pages that are read as files, from the top to the bottom" by the computer CPU (Meridith, 2019). The data read in the file becomes an algorithm, that other computers can read and scale at any size. The advantage of shared distributed memory is that it, has a unified address space where all data can be found. In this case example, the file itself and it is compatible with all computers .

Grid Computing

Grid Computing

Computer processors and electronic silicon integrated processors make up a custom designed computer motherboard.   This new computer uses computer resources from certain computer communication domains or domains to connect to then form a main objective. The computers along with the custom computer on a network work together on a task. This makes up a supercomputer. Computer Engineering is within this field of work.

CLOUD COMPUTING

Cloud Computing

Cloud Computing has three main service areas. They are Software-as-a-Service (SaaS), Infrastructure-as-a-Service (IaaS) and Platform-as-a-Service (Paas). Cloud Computing uses network resources and operating systems release software to provide services. That makes up for the use of resources of the Volunteer Computing model.

credit;
https://www.google.com/search?sxsrf=ACYBGNRCu25taCqUXb0Ifw0ZAdMn7IdZXQ%3A1578675404110&source=hp&ei=zKwYXr6oB
MPJ-gSazqHgCA&q=computing+definition&oq=Computing+&gs_l=psy-ab.3.3.0j0i131j0l8.24712.29535..44174...3.0..0.110.982.11j2.....
.0....1..gws-wiz.......35i39j35i39i70i249.fwtpYogyV5E