# Introduction

The term Serverless computing is used everywhere in IT industry, recent days and the term serverless was been the most searched term in google. Nowadays, all sorts of

business involve cloud services, without thinking about the issues in the infrastructure which lead to serverless architecture. The term serverless does not mean it works without any servers, the running of applications is done on servers but managing, owning or maintaining the server is not carried out . Cloud service provider takes care of all those processes including allocating the resources, hence the developer need not worry about it. The billing is carried out on the basis of usage of the resources. When serverless model is proposed, it provides various benefits such as the time required to meet the market is low, cost effective, provides higher efficiency but it can also produce certain risks - the control over the infrastructure is lost, as the cloud service provider takes care of it, we cannot produce any change in infrastructure according to the suitable process. Serverless computing does not provide any solution to problems in IT industry, but it will be the future of most cloud computing solutions.

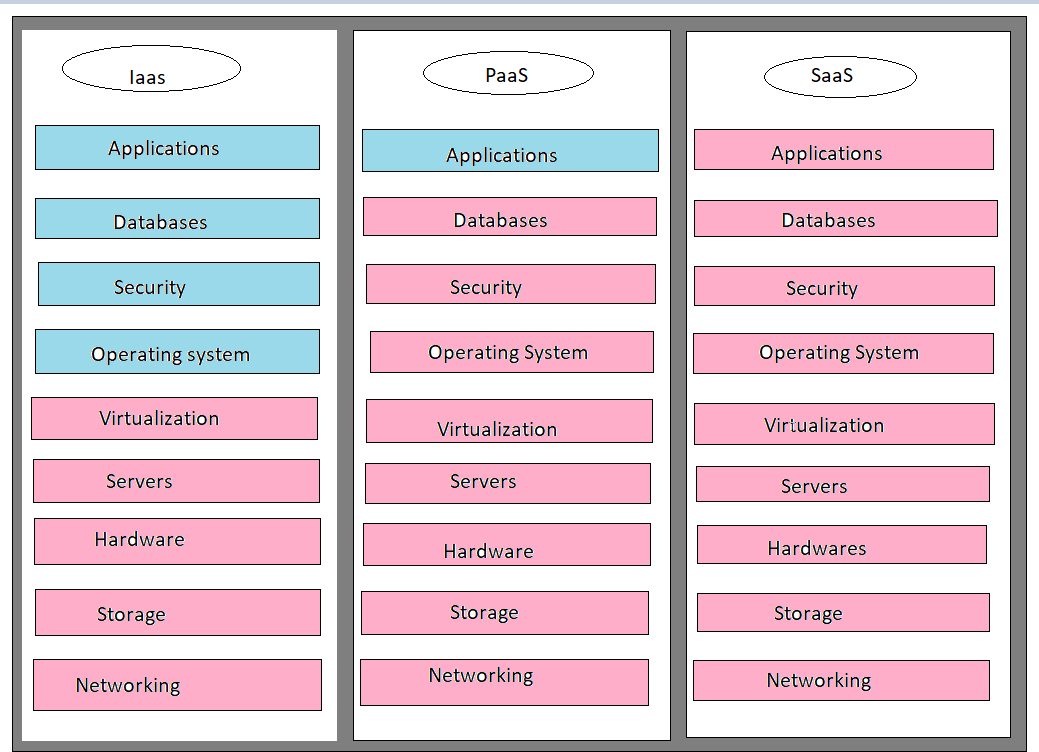


Figure 1

# Background Knowledge

Infrastructure virtualization in software and hardware led to the emerging of cloud computing. Cloud computing is divided into three categories namely SaaS, PaaS and IaaS. SaaS (Software as a Service) as shown in the Figure 1, here various kinds of software is provided by cloud provider as a service to the users. In Figure 1, blue color represents the tasks that are handled by customers and pink color represents the tasks that are handled by vendors. For example, Google provides various services to users like Gmail and Google play. The management and development services are not carried out by the users. In PaaS (Platform as a Service) the services such as accessing network, storage of data is provided by the cloud provider so that the developer can access to the services, organize them, run it accordingly and manage them. Finally, in serverless computing when the particular application is not in use, resources will not be allocated by cloud service provider, hence it is cost efficient as billing is carried out on the basis of usage of resources. Serverless makes the developers to focus completely on the tasks, as managing, owning and maintaining the servers is not carried out by them, instead the cloud service provider takes care of it. Zimki in the year 2006, introduced the serverless method “pay as you go” and this idea was brought into market as a serverless service in the year 2006, the evolution of serverless computing is shown in the Figure 2, here physical machines, virtual machines, containerization are server models and final process is the serverless model [9]. Later in 2014 Amazon proclaimed this technology as AWS Lambda, the exploration of this technology was later done by Microsoft, Google and IBM. After this serverless cloud computing infrastructure was launched by Microsoft.

While considering Facebook, this application is used everywhere in the world. The main function of Facebook is to allow the users to upload their pictures or videos and share it to their friends and it is a huge platform with two billion plus users. Hence, scaling of such a big platform is difficult process, but this capability can be seamlessly implemented using serverless computing. This capability can be implemented using Amazon Lambda, Google function or Azure function by which an HTTP end point is exposed so that we can upload the data through that end point. When serverless technology has not existed, the functionalities will take fewer months to get implemented.