What's the difference between instance store and EBS?

Some Amazon Elastic Compute Cloud (Amazon EC2) instance types come with a form of directly attached, block-device storage known as the instance store. The instance store is ideal for temporary storage, because the data stored in instance store volumes is not persistent through instance stops, terminations, or hardware failures.

For data you want to retain longer, or if you want to encrypt the data, use Amazon Elastic Block Store (Amazon EBS) volumes instead. EBS volumes preserve their data through instance stops and terminations, can be easily backed up with EBS snapshots, can be removed from one instance and reattached to another, and support full-volume encryption.

Root volume:

When you launch an instance, the root device volume contains the image used to boot the instance.An Amazon EC2 Windows instance created from an Amazon Machine Image (AMI) has a default 30 GB gp2 (General Purpose SSD) Amazon EBS root volume. You can expand the root volume using the Amazon EC2 console or the AWS Command Line Interface (AWS CLI).

Key pair:

A key pair consists of a public key that AWS stores, and a private key file that you store. Together, they allow you to connect to your instance securely. For Windows AMIs, the private key file is required to obtain the password used to log into your instance. For Linux AMIs, the private key file allows you to securely SSH into your instance. Amazon EC2 supports ED25519 and RSA key pair types.

Web server:

Definition: **A web server is a computer that runs websites.** It's a computer program that distributes web pages as they are requisitioned. The basic objective of the web server is to store, process and deliver web pages to the users. **The main job of a web server is to display the website content.**

When anyone requests for a website by adding the URL or web address on a web browser’s (like Chrome or Firefox) address bar (like www.economictimes.com), the browser sends a request to the Internet for viewing the corresponding web page for that address. A Domain Name Server (DNS) converts this URL to an IP Address, which in turn points to a Web Server.

The Web Server is requested to present the content website to the user’s browser. All websites on the Internet have a unique identifier in terms of an IP address. This Internet Protocol address is used to communicate between different servers across the Internet. These days, Apache server is the most common web server available in the market. Apache is an open source software that handles almost 70 percent of all websites available today. Most of the web-based applications use Apache as their default Web Server environment. Another web server that is generally available is Internet Information Service (IIS). IIS is owned by Microsoft.