APM - Application Performance Management. A practice within systems management that targets managing and tracking the availability and efficiency of software applications

ASP – Application Service Provider. A third-party entity that manages and distributes software-based services and solutions to customers across a wide area network from a central data center.

CRM – Customer Relationship Management. A system or service to manage current and future customers of a business.

DNS – Domain Name System. This system allows the association of a website name to an IP (Internet Protocol) address, so we don't have to remember an IP address all the time.

DRM - Digital Rights Management. Any access control technology used to protect and license digital intellectual property (IP). DRM is used by publishers, manufacturers and IP owners for digital content and device monitoring.

ERP - Enterprise Resource Planning. Business management software that a company can use to store and manage data from every stage of business.

IoT – Internet Of Things. A network of devices or physical objects connected via the Internet.

IP – Internet Protocol. Often used with IP address. An IP address is a number assigned to any device which connects to the Internet.

ISP – Internet Service Provider. A company that provides Internet and often telephone services as well.

MSP - Managed Service Provider. Also called a *Management Service Provider*, is a company that manages information technology services for other companies via the Web.

NAP – Network Access Point. A network facility where ISPs could connect with one another to 'peer'.

NSP – Network Service provider. A business or company that sells Internet access – very similar to an ISP

PaaS – Platform As A Service. A cloud computing service model which may cover execution runtime, database, web server and development tools.

PPPoE – Point To Point Protocol Over Ethernet. A specification which allows the connection of multiple computer users over a local area network.

SaaS – Software As A Service. A cloud computing model which may cover CRM, email, virtual desktops, communications and games.

SIP – Session Initiation Protocol. A communication protocol which allows video and voice communications to be controlled over the Internet.

SLA – Service Level Agreement. A contract between an ASP and the end user which stipulates and commits the ASP to a required level of service.

SSL – Secure Sockets Layer. Security technology which encrypts links commonly between web servers and browsers.

TCP - Transmission control protocol. TCP is a network communication protocol designed to send data packets over the Internet.

UPS - Uninterruptible power supply. It provides nearly instantaneous power when the main utility power source fails, allowing either time for power to return or for the user to shut down the system or equipment normally by closing running computer system applications and using the operating system to shut down the system.

VoIP – Voice Over Internet Protocol. A method and technology used to deliver voice communications using an Internet connection. For example, Skype, or Viber.

VPN – Virtual Private Network. A secure private network, which uses a public network such as the Internet to connect users.

WBT – Web-based Training. A generic term for training and/or instruction delivered over the Internet or an intranet using a Web browser.

- **General web development terms:**

  - *Server:* A computer that hosts website code, and that "serves" website code when requested by a "client" computer. Servers usually sit in large warehouses with thousands of other servers, and are similar in size and power to your home computer.

  - *Client:* A device used to access a website, including desktop or laptop computers, tablets, or mobile phones.

  - *Designer:* An artistic professional who decides how a website will look and feel, along with the ways users will interact with the website — such as, for example, clicking, swiping, scrolling, and so on.

  - *Wireframe:* An illustration created by designers that show in detail a website's layouts, images, and colour schemes.

  - *Developer:* An engineering professional who writes code to turn wireframes into useable websites. Based on the type of code written, developers are referred to as front-end, back-end, or full stack.

  - *Front-end:* Everything you can see and click in a browser. Front-end developers write code in front-end languages like HTML, CSS, and JavaScript to create the website appearance.

  - *Back-end:* Everything that happens behind-the-scenes to make the front-end perform as intended. Back-end developers write code in back-end languages like Ruby or Python to create functionality like logging in users, storing user preferences, and retrieving data like comments on a photo.

Front-end development

HTML (HYPERTEXT MARKUP LANGUAGE)

HTML is the standard language used to create web pages. It's the most basic building block you'll need for developing websites. You might remember basic HTML tags from early personal websites like Myspace, where you could customize your page with commands inside <>.

HTML5

HTML5 is (for now!) the latest version of HTML. HTML5 focuses on features that can be used on low -powered devices (making it ideal for creating mobile applications), the native ability to work with multimedia and graphic content, and new semantic web tag elements (features you use to structure your pages and documents).

JAVASCRIPT

Code that adds interactivity and animation to webpages. JavaScript also detects browser events such as mouse clicks, validates user input such as text entries, and retrieves data from external websites.

VARIABLE

A storage location that's given a name and that contains numerical data or text (referred to as *strings*) for later use.

IF STATEMENT (conditional)

A code instruction that tests a condition that usually includes variables, such as x < 18, and executes code you write when the condition is true.

FUNCTION

A name given to a group of programming statements for easy reference and use.

ELEMENTS

Elements are individual HTML components of a document or webpage. For example, a paragraph in an HTML document is an element. Elements are made up of an opening tag (<p>), a closing tag (</p>), and information between them:
<p>This is my paragraph!</p>

META ELEMENTS

Meta elements are HTML elements that don't appear visibly for the user on a webpage, but give the web browsers additional information about the page— keywords, author of the document, last modified, etc.

SEMANTIC ELEMENTS

Semantic elements are HTML elements that provide information to the web browser processing the page as well as the developer building it. While non-semantic elements like <div> and <span> don't describe their content, semantic elements like <header>, <section>, and <article> define their content in their name.

STRUCTURAL ELEMENTS

Structural elements are the HTML elements used to organize the content of a web page. Structural elements like <div> and <span> are used to group block level and inline content together, respectively, while <header> contains the header content of a page, <footer> contains the footer content, etc.

ATTRIBUTES

Attributes are used to provide additional information about HTML elements. For example an HTML element like a paragraph can have an attribute of being aligned (left, center, or right). Attributes are included in the opening tag and made up of the attribute name, an equal sign, and a value in double quotes.
Example: <p = align="right">This is my paragraph!</p>

OPENING TAG AND CLOSING TAGS

Opening and closing tags are sets of angle brackets with an HTML element character(s) that contains a piece of content or part of the structure for a web page
Example of opening tag: <p>
Example of closing tag: </p>

SELF-CLOSING TAG

Self-closing tags are opening tags that don't have a corresponding closing tag but instead close themselves with a forward slash before the right angle bracket. If you look at this tag to insert an image, you'll see that it has the / which typically denotes closing a tag inside the opening tag.
Example:

CSS

CSS (CASCADING STYLE SHEETS)

CSS is the language used to add style to documents created with HTML. Where HTML comes first and creates the foundation for a page, CSS comes along next and is used to create the page's layout, color, fonts, etc.

CSS3

CSS3 is the latest version of CSS, introducing features like rounded corners, shadows, gradients, transitions or animations, and new layouts like multi-columns and flexible box or grid layouts.

SELECTOR

Selector is a part of CSS code that defines which HTML element the CSS styling effects. For example if element "p" (say, a specific paragraph) is a selector, then p TKTKTKTK will change the font size of the selected element.

PROPERTY

A property in CSS is the part of a web page's foundational HTML code (font size, color, margin) whose appearance or style is changed by CSS.

VALUE

A value is the CSS code that defines the settings for for a CSS property. For example, if you're using CSS to change the font size and color of a certain block of text, the value describes what those changes will be. The value 1.5em, red, 20px will cause the property (the block of text) to have an indentation of 1.5 the font size, the text will appear red, and the font size will be 20pt.

DECLARATIONS

Declarations are parts of CSS code where a property and value for the selector are displayed inside a pair of curly brackets. {font-size: 1.5em;}

Back-end development

APPLICATION

Applications are types of software (also called "apps" and often used to refer to mobile device software) designed to provide a function for a user or another app. Apps include everything from web browsers, to word processors, to photo and image editing tools, to chat programs like Skype and Google Hangouts.

API (APPLICATION PROGRAMMING INTERFACE)

An API is the interface used for building web applications. APIs provide building blocks for coders to use, and then the coders put those blocks together to create the program they are trying to build. Examples of APIs include Google Maps API (allows developers to embed Google maps on web pages), Twitter APIs (Twitter has two APIs—REST, which allows developers to access core Twitter data, and Search, which allows developers to interact with Twitter Search and trends data), and Amazon Product Advertising API (allows developers to access Amazon's product database and advertise Amazon products on a website).

BUGS

Bugs are coding mistakes or unwanted pieces of code that keep a website or program from working properly.

DEVOPS (DEVELOPMENT OPERATIONS)

Devops is a software development process that focuses on helping development, operations, and quality teams understand each other and collaborate better. By unifying these three separate departments, Devops teams aim for shorter development cycles and more dependable software releases.

FRAMEWORKS

Frameworks are collection of programs and components commonly used in software development. Rather than spending time seeking out each of these components separately, developers can take advantage of frameworks where they are collected in one place. Examples of frameworks include Ruby on Rails, Bootstrap, AngularJS, and Joomla.

OBJECT-ORIENTED PROGRAMMING (OOP)

Object-oriented programming is a type of computer programming/software design that focuses on the creation of objects that have specific and unique attributes and abilities. In OOP, computer programs are made up of these

created objects that then interact with one another. This is in contrast to earlier programming languages that focus more on the process of turning input data into output data rather than the data (objects) itself. Examples of OOP languages include Ruby, PHP, and Python.

PHP (Hypertext Preprocessor)

An open source, server-side, HTML embedded scripting language used to create dynamic Web pages. PHP can perform any task that any CGI program can do, but its strength lies in its compatibility with many types of databases. Also, PHP can talk across networks using IMAP, SNMP, NNTP, POP3, or HTTP.

PYTHON

An open-source programming language used on the web, in scientific applications, and for data analysis.

RUBY

An open-source programming language (everything in Ruby is an object), best known for use in web programming. Ruby programs are compact, yet readable and maintainable. Ruby offers features such as blocks, iterators, meta-classes and others.

RUBY ON RAILS

Abbreviated as RoR, *Ruby on Rails* (also referred to as just **Rails**) is an open source Web application framework, written in Ruby, for developing database-backed Web applications. RoR closely follows the Model-View-Control (MVC) pattern, where models, views and controllers are fully integrated in a seamless fashion.

SOFTWARE

Software is a program or set of instructions that tells a computer, phone, or tablet what to do. Software includes individual applications (web browsers, word processors) as well as system software like operating systems (Microsoft Windows), drivers (software that allows operating systems to communicate with hardware like printers), and utilities (tools like anti-virus programs or hard drive defragmenters).

TEXT EDITOR

A text editor is a type of software used to write plain text (without formatting), which is often used for coding and programming. After code has been written, it's formatted another program called a compiler (specific to the programming language you're using) to make it computer-readable, but code normally

starts it's life on a plain text editor. Examples of text editors include SublimeText, TextEdit, TextWrangler, and Notepad++.

VERSION CONTROL

Version control is a tool used to keep track of changes to code and files on a website or app and allows the user to go back and restore earlier versions in case of bugs. Version control tools like Git are often built in to source code editors (programs used to write and edit code) like Visual Code Studio, or offered as part of a web hosting service.

WEB SERVERS

Web servers are computers used to store websites, online apps, documents, pictures, or other data, and can be accessed through the internet by way of applications like web browsers or file transfer protocol (FTP) clients. When you visit a website with the browser on your computer or smartphone, you are requesting it from a web server.

Systems

CACHING

Caching is what happens when a web browser stores recurring website assets—like images and font styles—so that the website will load faster on repeat visits from the same user. By caching, your browser won't have to reinvent the wheel every time the site is requested.

CLOUD COMPUTING

Cloud computing is a practice where data is not stored locally on your own computer, but instead is spread out among a number of remote servers accessible through the internet. Service like Google Docs, Facebook, and Gmail are examples of cloud computing—you are interacting with data on your home computer that is stored externally in "the cloud."

FIREWALLS

Firewalls are systems designed to protect and secure a computer network— everything from a commercial web service to your home WiFi network—from external security risks. Firewalls monitor inbound and outbound network traffic and determine whether or not to allow the traffic through based on a user-defined set of security standards.

ROUTERS

Routers are the devices used to connect personal computers to the internet via a service provider like cable or DSL. The device that your computer is either directly connected to via an ethernet cable or that you use to access your home WiFi network is a router.

UPTIME & DOWNTIME

Uptime and downtime describes how long a website, computer, or other system has been working (uptime) or not working (downtime).

VIRTUAL MACHINE (VM)

Virtual machine is software that makes it possible to use one computer operating system (like Windows 10) on a computer running another system (like a MacBook Pro). Examples include Virtual Box, Parallels, and VM Ware.

VPN (VIRTUAL PRIVATE NETWORK)

VPNs are networks that allow public internet connections to be used as private networks as a means of improving security. When you use a public WiFi network, for instance, your device and data are theoretically accessible by everyone else on the network. When using a VPN, you're still able to access the internet through the public network, but are shielded by the VPN. VPN's can be set up through some web browsers (like Opera), or can be accessed through paid monthly services.

Data

BIG DATA

Big data is a term for collections of data that are so large they can't be processed through traditional data processing systems. These collections come from sources like mobile devices, emails, search keywords, user database information, applications, and servers. By finding ways to comb through this data, companies can identify consumer patterns and use them to predict and optimize their business.

DATA ARCHITECTURE

How data is collected, stored, accessed, and used in companies and organizations.

DATABASE

Data architecture describes the way data is collected, stored, accessed, and used in companies and organizations. It can be seen as the roadmap for how data flows across an organization's IT systems and applications.

DATA MODELLING

Determining what kind of data is needed and how it will be structured and organized.

DATA VISUALIZATION

Data visualization is the use of graphs, charts, tables, infographics, etc. in order to define and communicate data being analyzed and the the findings that have come from it.

RELATIONAL DATABASE MANAGEMENT SYSTEM (RDMS) Relational database

management systems are used to organize data into tables—the data can then be accessed or reassembled without having to reorganize the database tables.
Examples of RDMS include SAP and MySQL.

Mobile

HYBRID APP

Hybrid apps are applications that will work on different platforms (computers, mobile devices, tablets) and are a combination of a native app (one that is stored locally on your device) and a web app (one that is accessed through a web browser on the Internet). Amazon and Apple App Stores, Twitter, Yelp, and Gmail are all examples of hybrid apps.

IDE (INTEGRATED DEVELOPMENT ENVIRONMENT)

IDE is a software application that includes tools like source code editors (text editors specifically designed for writing code), debuggers (tools for testing code), and build automation tools (tools for compiling code into machine-readable format and running automated tests). Examples of IDE's include Eclipse, Visual Studio, and VIM.

NATIVE APPS

Native apps are made specifically for certain platforms. They only run on the platforms they were built for, and are stored locally on those devices. Mail for iOS and Ingress for Android are both examples of native apps.

NFC (NEAR FIELD COMMUNICATION)

NFC is technology that lets mobile devices communicate using radio waves when they're very close to each other (about four inches or less) and is used for services like sharing files, pairing accessories, or wireless payments. Companies can use NFC to make products interactive with consumers' mobile devices, such as including NFC-enabled tags on products that allow users to register products, get discounts, or place new orders with their mobile device.

RESPONSIVE WEB DESIGN

Responsive web design is the practice of designing websites so that they adapt gracefully to different-sized devices like phones, tablets, wearable devices, etc. If you're able to visit a website on your phone and it looks just as proportional and seamless as it does on your computer, it's an example of responsive web design.

SDK (SOFTWARE DEVELOPMENT KIT)

SDK is a set of tools for creating specific types of software. SDK's are released by companies that control the platform the software is being developed for. For instance, apps developed for iOS require the iOS SDK, Windows apps require the .NET Framework SDK, and Java apps require the Java Development Kit.

WEB APPS

Web apps are websites that look and feel like an app (as opposed to a series of linked pages). Facebook, Pandora, and Google Docs are all examples of web apps.

Old words:

3G, 4G = New generations of mobile phone standards, allowing mobile phone network operators to offer advanced services

Ethernet = A very high bandwidth data networking technology used by companies in LANs and increasingly WANs

GSM = Global system for mobile communications
- A worldwide standard for mobile phones making phones from one operator compatible with a different operator in another country

- **MPLS** = Multi-protocol label switching
  - A data networking protocol and service that can carry different kinds of traffic – voice, data, video etc.
- **Open source** = software that is made available to developers and users, licensed to encourage re-use without charge
- **SaaS** = software as a service
- **Wi-Fi** = a technology providing wireless transmission of data over short range
- **Wi-Max** = a technology providing wireless transmission of high speed data over large area
- **Bluetooth** = a technology that allows short-range, wireless connection between devices
- **LBS** = location based services
  - Information, products, or services provided to you based on the location of your device
- **GPRS** = General packet radio service
  - Provides packed-based connections on mobile networks
- **GPS** = global positioning system
  - Allows receiver to identify its position anywhere on earth
- **EPOS** = Electronic point of sale
  - A networked and programmable till
- **RFID** = radio frequency Identification
  - A system of tags and readers that communicate information via radio frequency
- **LAN** = local area network
  - A computer network covering a local area, such as home or an office
- **DSL** = digital subscriber line
  - Digital lines that are provided by telephone companies
- **PBX** = private branch exchange
  - A telephone system bought and used by a company in their office
- **PSTN** = Public switched telephone network
  - A country's telephone network
- **PTT** = Public telephone & telegraph
  - A country's telephone network operator
- **VoIP** = voice over IP
  - Packetized voice over internet

- **VSAT** = very small aperture terminal
  - A small satellite dish normally mounted on the roof of a building
- **ERP** = Enterprise resource planning
  - integrated management of core business processes, often in real-time and mediated by software and technology
- **cutover** = transitional period in a computer system during which old and new systems work concurrently
- **node** = terminal in a computer network
- **fiber backbone** = main wire that connects nodes
- **local loop** – connection between telecommunication company central office to the lines in the service subscribers home or office
- **lead time** = the time between the initiation and completion of a production process
- **ping test =** a utility to determine whether a specific IP address is accessible
- **round trip delay** = is the time required for a single pulse or a packet to travel from specific source to a specific destination and back again.