API (Application Programming Interface)

API is the acronym for Application Programming Interface, which is a software intermediary that allows two applications to talk to each other. Each time you use an app like Facebook, send an instant message, or check the weather on your phone, you're using an API.

When we use an application on our mobile phone, the application connects to the Internet and sends data to a server. The server then retrieves that data, interprets it, performs the necessary actions and sends it back to your phone. The application then interprets that data and presents you with the information you wanted in a readable way. This is what an API is.

Example to understand it better ::

Imagine we're sitting at a table in a restaurant with a menu of choices to order from. The kitchen is the part of the "system" that will prepare your order. What is missing is the critical link to communicate your order to the kitchen and deliver your food back to your table. That's where the waiter or API comes in. The waiter is the messenger – or API – that takes your request or order and tells the kitchen – the system – what to do. Then the waiter delivers the response back to you; in this case, it is the food.

Here is a real-life API example. You may be familiar with the process of searching flights online. Just like the restaurant, you have a variety of options to choose from, including different cities, departure and return dates, and more. Let us imagine that you're booking you are flight on an airline website. You choose a departure city and date, a return city and date, cabin class, as well as other variables. In order to book your flight, you interact with the airline's website to access their database and see if any seats are available on those dates and what the costs might be.

Location Based Attendance Tracking with Geofencing

Scheduling shifts and monitoring attendance of remote student is a tough task for Teacher. If an organisation is using the age-old process to keep track of remote students on paper, or excel, it is wasting unnecessary time and effort and putting extra stress on staff. Businesses need advanced technology to keep track of where their students are, and whether they are in the correct location or not. A sophisticated time management system with geofencing capability helps track employee attendance in real-time.

Geofencing is a virtual perimeter for a real-world geographic area. Generally, this feature allows an administrator to set geographical areas to limit where an employee is permitted to clock-in and clock-out. An administrator can define an unlimited number of zones and assign them to employees, based on factors such as day of the week, time of day, and more.

Employees will have to be there in this area to submit clock-in and clock-out of their shift. By setting a range of exactly where and when the employees will be able to clock-in/out, you will be able to know where the employees are and when they are there, which gives you peace of mind so you can focus on more significant things.

Geofencing lets you do more than just the clock-in/clock-out process. It gives you the ability to monitor your employees' location in real time based on their GPS location, and have them do a set of safety checks to let you know everything is going well at the workplace. A robust shift scheduling software system will give your employees directions to their assigned work site and allow you to communicate back and forth within the solution.

In case there are any issues, the employees can send notifications in real time, from the mobile app. On the other side, managers can communicate real-time changes directly to employees, all while ensuring they are safe at work.

Through better communication between managers and employees, the relationship with employees will improve and lead to lower staff turnover and higher employee satisfaction, which has the potential to boost the business

bottom line. Clear communication is crucial to keep employees happy, as well as customers.

Shift scheduling software even provides you with a detailed report of when and where your student are, so customers will be assured that they are being taken care of. Moreover, it saves costs by administering clock-in/clock-out of shifts of remote student and ensures that you get accurate attendance data.

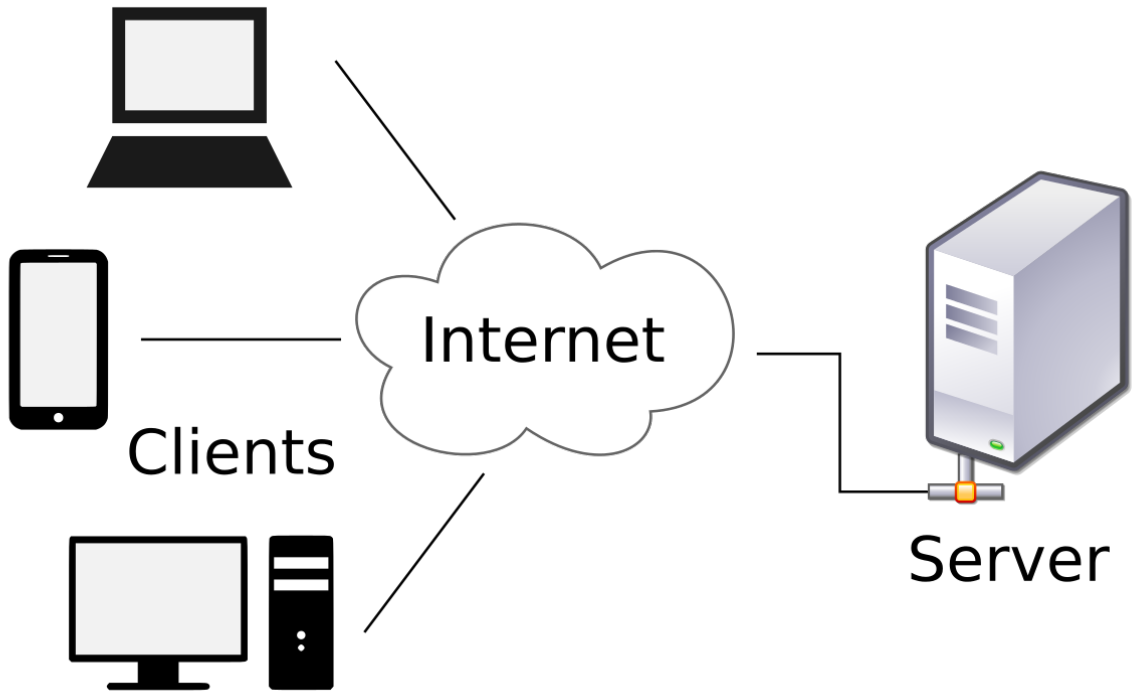
The power of geofencing technology helps you manage the attendance of your mobile workforce, like field staff out on marketing or service tasks.

Geo Attendance – Advantages

- Enables organisation to capture the attendance of their employees from any location, at any given time.
- Geo-attendance and Geo-fencing features allows managers to track employee location, distance and route travelled.
- Track real time location of all your employees on field or other work sites.
- Employees can mark their attendance via mobile once they enter the building or its defined radius.
- Minimal dependence on phone data. Auto tracking once device boots, auto approval when employee logs in location and continuous tracking even when application is terminated.
- Effortlessly integrate Attendance data with Payroll and Leave module.

Client–server model

Client–server model is a distributed application structure that partitions tasks or workloads between the providers of a resource or service, called servers, and service requesters, called clients. Often clients and servers communicate over a computer network on separate hardware, but both client and server may reside in the same system. A server host runs one or more server programs which share their resources with clients. A client does not share any of its resources, but requests a server's content or service function. Clients therefore initiate communication sessions with servers which await incoming requests. Examples of computer applications that use the client–server model are Email, network printing, and the World Wide Web.



Client-host and server-host

Client-host and *server-host* have subtly different meanings than *client* and *server*. A host is any computer connected to a network. Whereas the words *server* and *client* may refer either to a computer or to a computer program, *server-host* and *user-host* always refer to computers. The host is a

versatile, multifunction computer; *clients* and *servers* are just programs that run on a host. In the client–server model, a server is more likely to be devoted to the task of serving.An early use of the word *client* occurs in "Separating Data from Function in a Distributed File System", a 1978 paper by Xerox PARC computer scientists Howard Sturgis, James Mitchell, and Jay Israel. The authors are careful to define the term for readers, and explain that they use it to distinguish between the user and the user's network node (the client).[7] (By 1992, the word *server* had entered into general parlance.)
