[Difference between REST & RESTful](https://stackoverflow.com/questions/1568834/whats-the-difference-between-rest-restful)

[REST](https://www.geeksforgeeks.org/rest-api-introduction/) stands for **REpresentational State Transfer.** It was introduced by Roy Fielding the man behind HTTP (HyperText Transfer Protocol). He made REST so that we can make the best use of HTTP. It performs actions using based on transfer protocols such as HTTP-post, get, put, delete.

REST is also termed as an Architectural Style for web services and has mainly three components –

* Data exchange format(JSON popularly)
* Transport (HTTP only)
* Service Definition (WADL/Swagger/..)

Rest Services also have the following principles:

* It does not contain any inbuilt encryption.
* It does not contain session and it is stateless.
* It only uses one protocol that is HTTP.
* It returns anything in form of JSON.
* Capable to perform CRUD operations using Hyper Text Transfer Protocol.

**Restless WebService:** It is a web service that does not obey REST architecture. It uses an XML document to send and receive messages. It also uses SOAP that stands for Simple Object Access Protocol. This service is useful for applications that are to be made secure. It is easy to build a Restless web-service.

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**Restfull WebService:** It is a web service that uses REST architecture. It also uses request and response type requests with REST principles. This service is useful for applications that have to communicate with different services, through API calls. These applications are built for performing CRUD operations. It is a less secure way to built applications using this service. Restful web service provides interconnecting with different computers.

**Difference between Restless and Restful webservices:**

| **Basis terms** | **Restless Web Service** | **Restlful Web Service** |
| --- | --- | --- |
| Architecture | It is not based on the principles of REST. | It is based on the principles of REST architecture and is integrable with other computer systems on the network. |
| REST principles | It does not uses REST principles. | It uses REST principles. |
| Communication | It uses SOAP services. | It uses REST services. |
| Data Formats | It supports only XML format. | It supports JSON, HTML, etc format. |
| Functions | These services uses service interface to show business logic. | These services uses URL to show business logic. |
| Usability and Flexibility | It is less usable and flexible for the users. | It is more usable and flexible for the users. |
| Security Aspects | More secure as it designs it’s own security layer. | Less secure as it uses the security layers to communication protocols. |
| Bandwidth | It uses a small bandwidth. | It uses a large bandwidth. |