

# Web Service Based News Portal

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**Abstract:** Providing web services for smart phones is the currently recent booming topic, this happened because the smart phones are used in almost every area, where today's user uses it for mobile banking, emailing, searching location and data. Smart phones are advanced in terms of processing power, memory, an embedded camera, sensors and same time parallel advancement in wireless network and software web technologies. This project will direct our work in the current generation platform technologies and standards such as Android OS and REST for News Portal.

It is a complete news portal showing all the news around the nation in an interactive fashion at one place. It aims in bringing more simplicity for obtaining news about any issue round the nation. Every newspaper and news channel publishes the news on their website. So a person has to visit various websites if the user needs information about any current news in which ever language the user wants. So this portal aims to bring all the news of all different languages grouped together under one banner by provisioning web services. All sorts of news ranging from breaking news to cricket news are covered over here. Information regarding daily horoscope as well as latest stock prices are also obtained in this single portal.

Mobile devices (Smart phones, PDA, Tablets), Mobile web services and wireless communications, by the year 2020 will be expected to play a central role in all aspects of our lives. The Mobile web service provisioning is substantially expanding on the concept of 'Anywhere, Anytime and on Any Device' to a new paradigm ubiquitous mobile computing. It is used to improve access to meaningful, quickly and required information and content through mobile web services. Many of the problems of mobile web services can be solved by targeting the distributed nature and isolated deployment of mobile applications. One of the most promising way to create viable web services for mobile devices is to add extra intelligence to the web services, both on the web service provider and the web service consumer.

**Keywords**—Android, SOAP, REST, WAMP, XAMPP, PHP, JSON

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## I. INTRODUCTION

In today's world there are many applications around in the android market. Each application seems to fulfil our particular requirement. Right from online shopping to education, the android market has it all. But the user needs to download several applications, each application relating to a particular task. This becomes extremely tedious at the user end as the user needs to manage several applications to get each of his tasks accomplished. So how would it be if we had an application that would indeed serve a great purpose by integrating many features together in a single application? This will lead to the user downloading a single application and thereby using its multi-featured functionality in order to get his various tasks accomplished.

Our application will mainly benefit the people who are interested in reading newspapers in different languages. It will have several features right from multi-linguistic newspapers to job portal. People can fulfil their various interests by just using a single application.

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banner by provisioning web services. All sorts of news ranging from breaking news to cricket news are covered over here. Information regarding daily horoscope as well as latest stock price is also displayed.

## II. HOW DO THEY WORK?

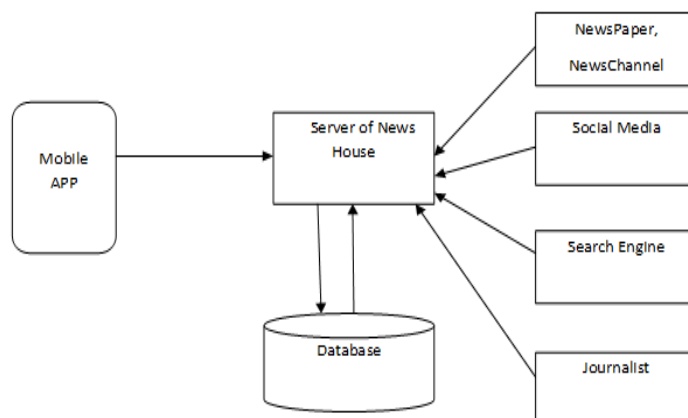


Figure 1: Block Diagram

Figure 1 shows an android application that will work on web based services. Extremely dynamic & interactive, it will be fun reading for the end user. The use of animations and images in a digital machine will keep the user hooked onto the news portal for longer period of time. Mobile web service provisioning is art to allow programmers to deploy, discover, publish and execute of web services in wireless environment using standard protocols and without disturbing basic functionality of smart phone use mobile phone as web service provider. Mobile web service provisioning can be classified based on architecture as SOA (Service Oriented Architecture) or SOAP based Mobile web service provisioning and ROA (Resource Oriented Architecture) or REST based Mobile web service provisioning and are used to provide web service access to end-user.

SOAP is designed for a fixed network environment where high end servers are used, but REST is alternative to SOAP for the fixed network environment as well as mobile network environment and resource constrained devices. Representational State Transfer (REST) is also called Resource Oriented Architecture (ROA), is a style of software architecture that relies on the fact that any resource (such as Web services) can be identified by their URLs. REST is an architectural style defined in his dissertation and it is derived from the Web, and its purpose is to assemble the fundamental design principles that enable the greater scalability, growth and success of the Web services on the web.

REST is initially used for publishing hypermedia documents but later it is becoming a common scheme for realizing Web services on fixed network as well as a mobile network. REST follows a different philosophy than SOAP by focusing on data instead of operations and also to provide resource friendly alternative to SOAP. REST based web services are tightly coupled with the HTTP protocol however we compromise their flexibility and portability. REST-ful Web services gained much attention from the Web community due to their simplicity and scalability. Major Web service providers such as Google, Amazon, Yahoo, and eBay adopted the REST-ful Web services approach in their offered Web services. REST-ful Web services use unique URIs for identification of resources. These resources are accessed and manipulated using a set of uniform methods GET, POST, PUT and DELETE.

REST based web service provisioning architecture has two components: Web Service Requestor (Client), Web Service Provider (Host). In this web client directly send HTTP request to host and host parse the request and web servlet generate response, and then response sends back to the client using the same protocol.

### III. METHODOLOGY

On downloading the application, we first ask the user to sign up with using Facebook, Twitter or through News Portals Registration system. This allows us to access users Credentials. Also once the user sign up we can store all his /her data on

server for anytime access. The users get few options to select form .the user may add options of his choice. this options may includes various Categories for news like different Top ,Entertainment, World, etc.

The user then able to scroll to News and articles with having options "LIKE", "DISLIKE" ,"FAKE", "TRUE". Based on his response, the algorithm will get more data using which can give better recommendations to other users.

The application UI is made using the Android Studio (Development Module Provided by GOOGLE). For the backend storage we are using WAMP/XAMPP Server and MySQL. All the Properties along with News/Articles will be stored in dummy database. To extract the News/Articles from server we will be using PHP with JSON. Each stored Article and News is analyzed using content based filtering and interactive genetic algorithm. The final step after filtering will be Verified News. Our system will evaluate millions of articles, social signals and human interactions to deliver top of stories that matter most.

### IV. GENETIC ALGORITHM PROCEDURE

1. Choose the initial population of articles.
2. Evaluate the fitness of each article in that population.
3. Repeat on this generation until termination (Time Limit).
4. Order the articles based on best fit.
5. Evaluate the individual fitness of new articles.
6. Replace least-fit population with new articles.

### V. ANALYSIS

A detailed analysis is made to analyze all requirements in detail, identify and solve possible problems and sketch the system concepts. The analysis also gives answer to questions like what tools and technologies should be or is possible to use, what can be the project schedule, make better budget estimations.

Figure 2 depicts the activity diagram of the system. Activity diagram is basically a flow chart to represent the flow from one activity to another activity. The activity can be described as an operation.

Figure 3 depicts the use case diagram of the system. Use case diagrams consist of actors, use cases and their relationships. The diagram is used to model the system/subsystem of an application. A single use case diagram captures a particular functionality of a system. The purpose of use case diagram is to capture the dynamic aspect of a system.

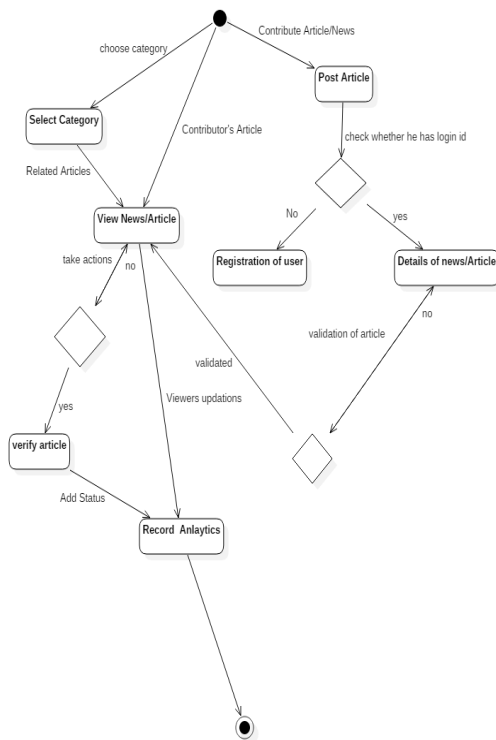


Figure 2: Activity Diagram

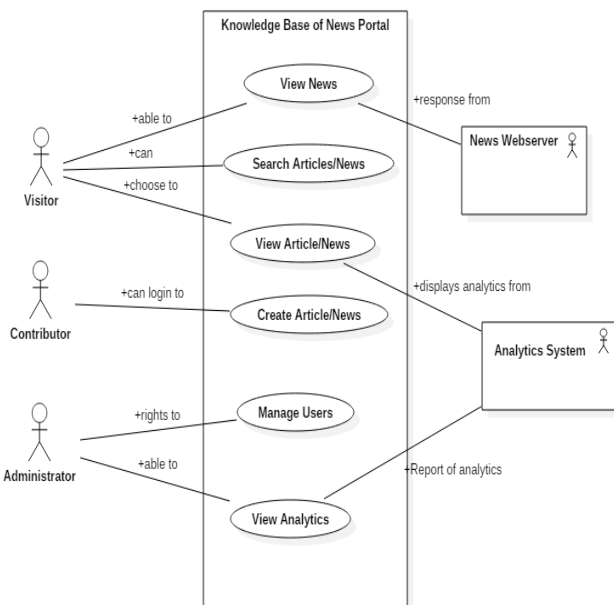


Figure 3: Use Case Diagram

The knowledge base of the news portal constitutes of view news, search news, view articles, create articles, manage users and view analytics. The visitor is able to perform 3 functions; it is able to view news, it can search the news, it can choose to view articles. The contributor can login to the system in order to create the news articles. The administrator plays a very crucial role; it has the right to manage the users as well as it is able to view the analytics. There exists a news web server that

gets the responses from the news. The analytics system displays the analytics from the news articles. It can also report analytics from viewing the analytics.

## VI. CONCLUSION

In this paper, we make a brief survey of the existing system regarding news portals. We review their characteristics respectively. The issues of the existing system are also discussed. We have provided an idea as to how the proposed system will function.

In future, our work will focus on deeper study in the field of web service based news portals, with the sole aim of concluding the current situation of the field and promoting further development in the field of web service based news portals.

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