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# Online Shopping E-commerce Android Application and E-commerce Website Development

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**Abstract:** We are Designing an app that directly sells its products to the customer. As compared to other apps which have tie-ups with multiple retailers. Eg: Amazon is an online shopping App which is collaborated with multiple companies, So Amazon becomes the 3rd party vendor. Due to our App there will be no such 3rd party vendor in the whole sale process because by using our App customers will be directly connected to the manufactures of the products. By using this application customers can directly get the required products of the Company directly from the company that to in manufacturing rates. By using the website of our client one will be able to compare wide range of products and also be able to purchase those. This report will be consisting all the design plan of the app as well as the design plan for the client website & Search Engine Optimization for the same.

**Keywords:** E-Commerce , Website Development , Android App Development

## I. INTRODUCTION

We are designing an Android Application which will be able to sell the clients products directly to the customer. This Application will have multiple layouts and layers that will coincide

In today's technological world we are seamlessly ready to integrate technologies to one's lifestyle and enhance customer experience. Digital transformation is causing tremendous changes within the manner during which businesses function. Android is one among the foremost widely used operating systems within the world. It is revolutionizing the way during which the technological sector is working. An android based application can effectively serve the aim of aiding the purchasers in shopping by working sort of a digital assistant. Mobility of individuals and technologies are key factors in today's economy. Mobile applications are of utmost importance once cooperation markets their merchandise or services. Mobile phones have generated an incredible opportunity for accessing the Internet, while e-commerce has increased the level of using a mobile phone for business. Applications for electronic and mobile commerce are, however, developed sufficiently to hide all aspects of the market.

Website will give internet freedom to company to monetize their products and business on a wide and larger scale.

Search Engine is actually useful tool in present era of web. There are many of search engines available in market, but most popular search engine is Google. So for getting topmost results in web, we have to use search engine optimization technique. Search engine optimization gives the client to improve their business and market there business more than the competitors.

## II. REVIEW LITERATURE

A. "E-commerce Smartphone Application", IJACSA [2012].

It describes and analyses device requirements, provides a literature review of important aspects of mobile devices which will use such applications and therefore the requirements of internet sites designed for m-commerce. The design and security aspects of mobile devices also are investigated. Methodology used in this paper are Research Procedure, Software Development methodology and Application architecture.

B. "Survey on Search Engine Optimization Tools & Techniques", IJIR [2017].

This paper may be a complete survey of various tools and techniques used for SEO. By performing SEO we'll be ready to improve a website's visibility within the main body of search engines result. This may help in ranking the web site at the highest of all other links. Various techniques utilized in this paper like White Hat SEO, Black Hat SEO or Spamdexing, Gray Hat SEO and SERP

C. *“An Approach to give First rank Website and Webpage Through SEO ” , IJCSE [2014].*

This paper is fully based on keyword research it means if a person is able to optimize the right keyword whatever keyword used currently then its sure that their site is on the top first page on Google page result. Methodology used in this paper consist of On Page Optimisation and Off Page Optimisation

D. *“Design and Implementation of an Android Application for Smart Shopping” , IEEE [2019]*

In this paper the smart app consists of two parts which mainly focuses on navigation to the item’s location and automatic billing of the products that the user has purchased.

E. *“Search engine optimization with Google” , IJCSI [2012]*

In this research paper, we got to know how to optimize a user’s website using search engine optimization (SEO) in Google and the type of SEO that can help the user’s website to achieve top position in Google by increasing the page rank, which may help the organization with profitable deals and may also increase its visibility in the Google search engine. As mentioned in this paper, to optimize a web page, we have to edit its contents and HTML code so that it will have more specific keywords and proper indexing in search engines. The Googlebot in Google is a crawler that is used to edit the coding and contents of the indexing pattern of the search engine. Googlebot is a powerful way to reach the customer when they are in need. It also consists of tools such as Google Webmaster tool, Meta Tag analyser Tool, Link popularity check tool, Sitemap submission tool, Keyword suggestion tool, etc. to be used to optimize a webpage that we are also going to use to optimize our website.

F. *“Search Engine Optimization (SEO) : Improving Website Ranking” , IJERT [2014]*

This paper consists of information regarding the technique that is used in Search Engine Optimization (SEO) to increased its website ranking so as to get a higher number of visitors. Search Engine Optimization (SEO) is the activity of optimizing an individual web page or the entire website to acquire a higher ranking in search results. SEO helps the website designer to get a top-ranking position in the search result list, attract more online visitors and finally improve the marketing capability of the site. By using SEO, the optimized website can obtain better ranks so we are also going to use SEO for our website. The search engine has three groups i.e. General SEs, Vertical Search SEs, and Location-based SEs. It also shows how Google ranks websites and how we can improve the rank of our website. SEO has two major factors i.e. on-site Optimization and Offsite Optimization which we are going to use in our website and it also has white hat SEO and black hat SEO techniques. To improve the website ranking it is important to build more links online.

G. *“Survey on Mobile Application Development using Android OS” , IEEE [2013]*

In this paper there is a detail discussion about the various aspects of Android architecture, Programming framework, Features and also a Comparison analysis with other mobile platform standards. It allows developers to write managed code in a Java-like language that utilizes Google developed Java libraries, but does not support programs developed in native code. To solve this problem Android team has two type of solution. Firstly, it search to reach at a common open-source operating system that any mobile device can run on. Secondly, it makes developing applications for these mobile devices more general. Android applications are Java-based and use its own virtual machine called Dalvik Virtual Machine which interprets and executes portable Java style byte code after transforming it, which is optimized to operate on the mobile platform. It elaborates the major components of android and discusses the demand for the mobile platform standards on resource constrained devices. This paper gives description about the Android Architecture, illustrates the Application Programming Framework with its features, discusses the detailed analysis of Android market with a comparison of various mobile platforms.

H. *“Application Development with Android: A Review” , IJCESR [2018]*

This paper consist of how mobile applications can be developed via android, details about its core features and about the android architecture. As it is mentioned in this paper that for writing an android application we can use languages such as java, kotlin, c++ but in our app we have used Java. With the help of android we are able to develop more convenient mobile applications. Android architecture is divided into 4 parts i.e. application framework, libraries, android runtime and Linux kernel. So we have used all of these in our android application. Because of this consistent platform any developer can bring their thoughts into reality. Also, with the help of various libraries, we can implement tremendous features in an android application that can be used worldwide. So from this paper we got to know that it is such a platform which allows the users to experience the good quality of services, and allows to develop more convenient software.



**I. “ Review Paper on Search Engine Optimization”, IJESC [2017]**

In this paper we got to know that SEO i.e. Search Engine Optimization may target different types of search such as video search, image search, news search, etc. one of the SEO tactic is promoting a site to increase its number of back links or inbound links. SEO is the method of constructing a website and its content extremely relevant for each search engine and searchers. This paper shows a conceptual schematic of webpage indexing as well as conceptual schematic of the querying and document retrieval process. There are 7 basics SEO techniques which are mentioned in this paper out of which we have used some of them in our project such as optimizing title tags and created compelling meta descriptions.

**J. “A survey Paper on Introduction to Android and Development Process”, IRJET [2020]**

This paper consist of information regarding different types of mobile applications and its development methods. Android includes a software package development kit (SDK) that helps us to write original code and assemble software package modules to form apps for android users. To develop apps efficiency, Google offers an integrated development environment (IDE) called Android Studio which we have used in our project as it offers advanced features for debugging, developing, and packaging Android apps. Android Studio helps in developing app for any Android-powered device, or to create a virtual devices that emulate any hardware configuration.

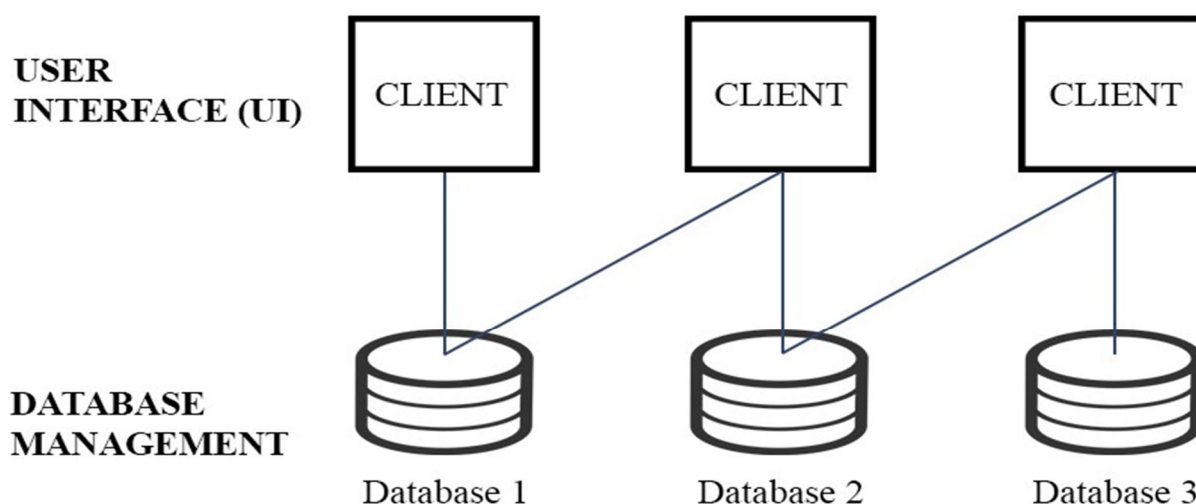
**III. MOTIVATION**

We are living in 21<sup>st</sup> century where people have a very fast on going lifestyle. Day-by-Day as mankind is evolving so is the technology. Bringing out the best of each individual has become a necessity. We are developing an E-Commerce Android Based Application and E-Commerce Website Development for the same. The Highlight point of this project is that these both Medium are going to be a direct connecting pathway from Client to the consumer. The core aspect of this project would be to deliver simple but efficient solution to the consumer to reach out their needs at the best offering they can get from the Client.

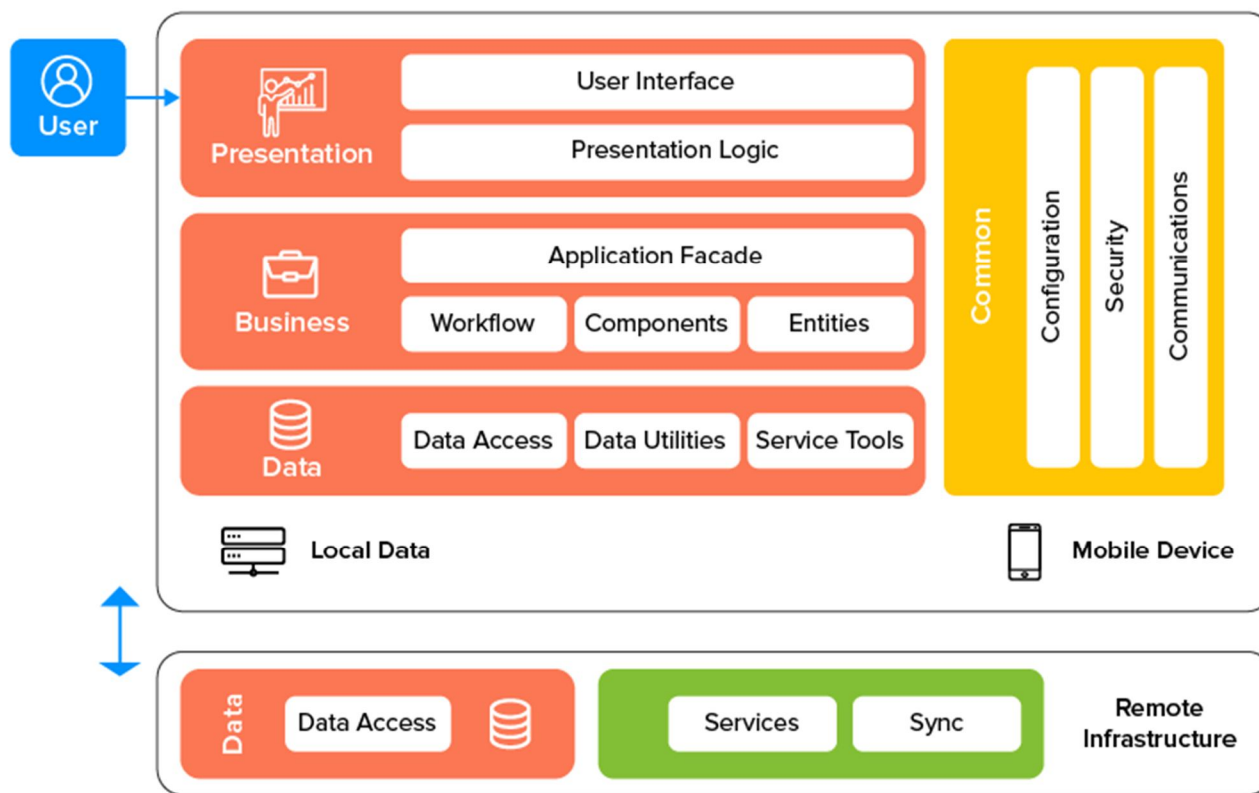
**IV. ARCHITECTURE**

The basic Architecture for E-commerce Website Development is as follows:-

**TWO-TIER ECOMMERCE ARCHITECTURE**



The Basic Architecture for E-Commerce Android Application is as follows:-



### V. CONCLUSION

In today’s technological world we are seamlessly ready to integrate technologies to one’s lifestyle and enhance customer experience. Digital transformation is causing tremendous changes within the manner during which businesses function. Android is one among the foremost widely used operating systems within the world. It is revolutionizing the way during which the technological sector is working. An android based application can effectively serve the aim of aiding the purchasers in shopping by working sort of a digital assistant.

Mobility of individuals and technologies are key factors in today’s economy. Mobile applications are of utmost importance once cooperation markets their merchandise or services. Mobile phones have generated an incredible opportunity for accessing the Internet, while e-commerce has increased the level of using a mobile phone for business. Applications for electronic and mobile commerce are, however, developed sufficiently to hide all aspects of the market.

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