



APNA BAZAAR E-Commerce Mobile Application

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APNA BAZAAR E-COMMERCE MOBILE APPLICATION

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Abstract— Over the earlier years, online business has gotten standard. In Morocco, the lifestyle of the online business is, continuously, kicking in. More than that, there is a smooth move to using mobile phones for shopping. Accordingly, "APNA BAZAR", which is a material shop arranged in Delhi, picked to stretch out their business open up to the online market through an electronic business structure. This will get new clients from wherever in India to use their structure. This endeavour, from the outset, starting in the Database Systems course, where a work zone application was created for the organization of the data base. A web application was in like manner advanced as an interface for the online business.

This online business project started with the arrangement of a more current backend, informational collection with a web application that is synchronized with the flexible application's data base to be executed. From there on, the electronic shopping stage was executed as a flexible application.

The objective of this endeavour is to have an aggregate, reliable, and remarkable online business structure that is needed to be an extra motivator for the association.

Keywords— *Android Studio, Android Application, E-Commerce, Online Shopping, Home Delivery, Discount, etc.*

I. INTRODUCTION

The Capstone Design course is needed by the School of Science and Engineering as incomplete satisfaction of the four-year certification in Galgotias University in India. All through the improvement of the online business project, the understudy going to graduate exhibits the information obtained during his four years as an undergrad understudy. The improvement of acquired software engineering abilities: Database Design, Web Development, Desktop Application Development, Software Engineering, and Mobile Applications Development. In 2019, a study was directed by the National Telecommunications Regulatory Agency in India about the use of cell phones in India. The study's outcomes show that 54.1% of people are furnished with a cell phone, which is 14.7 million units by 2019 and it is developing quickly. The quantity of cell phone proprietors is becoming exceptionally quick.

APNA BAZAR is a store that offers different garments and extras for Men, Women, and Children and addresses the issues of the entire family. As an expert in the

dissemination of outdoor supplies in India, Store offers its clients a wide assortment of items.

In this way, the advancement of a versatile application for web-based shopping is a promising venture since the utilization of cell phones is as yet developing and the market isn't yet immersed. That is on the grounds that the internet shopping society isn't old in India.

The framework that I am actualizing in this capstone project is a finished online business framework, comprised of a data set, web and versatile application (for clients), and a work area application (for the overseer). Notwithstanding, the primary spotlight is on the Mobile Application.

LITERATURE REVIEW

II. COMPARITIVE STUDY

Socio Culture: Phones have colossally changed our overall population. They changed the way people live. In fact, almost everybody has a mobile phone and uses it reliably for different endeavours. And with phones overflowing with applications, the important thing most of us do at the start of the day is checking our PDA. Versatile applications have changed the way in which we use our phones. We can say that our overall population is rapidly changing towards the incredibly all-over use of flexible progressions. More than that, having a wireless and using it for shopping is transforming into an example. Thusly, our athletic clothing shop needs to remain mindful of the social changes to arrange our purchaser needs and tendencies.

Technological : The market is rapidly changing, a significant part of these movements are an aftereffect of mechanical upgrades. These degrees of progress can make new business areas and new opportunities. An online shop, as a compact application, identified with our genuine store will be the first of its sort in the dynamic clothing market. This will allow the association to remain mindful of the mechanical example and run the store even more feasibly. It will moreover improve the correspondence between the association and its customers. This will improve the customer's experience as he will be taught basically all the new things and have them passed on to him.

Economical: The versatile application will be permitted to download for all customers. It is made using open-source/free devices and programming lingos, the advantage will be mainly from the purchases made. More than that, the system

made is depended upon to guarantee financial improvement for the association by virtue of the augmentation to the online market. It is moreover expected to gain customer assurance. Moreover, since the electronic business will be dispatched in comparing with the certifiable real shop, this compact application online shop will not impact the work cycle of the overall association. This could similarly achieve improving arrangements of dynamic clothing things; which may diminish expenses and addition contention. The mobile application are going to be unengaged to transfer for all customers. it's developed exploitation open- source/free tools and programming languages, the profit are going to be in the main from the purchases created. quite that, the system developed is anticipated to ensure economic process for the corporate due to the enlargement to the web market. it's conjointly expected to realise user confidence. Also, since the e-commerce are going to be launched in parallel with the particular physical search, this mobile application on-line search won't have an effect on the advancement of the general company. this might conjointly end in rising sales of athletic wear products; which could cut back costs and increase competition.

Ecological: Building up this online store will some way or another be agreeable to the climate. It will save the energy required for the clients to genuinely visit the shop (fuel). This will safeguard energy and forestall the contamination of the neighbourhood climate. Likewise, making a digitized adaptation of the organization will diminish the utilization of papers, henceforth protect the climate.

Political: In this unique situation, there are no immediate results of dispatching a portable application online store. Truth be told, the public authority of India appears to have an inspirational position with regards to new advances.

Legitimate: The versatile application that will be created is totally legitimate since it doesn't infract any law in the Indian constitution. It will not be hurtful in any capacity and it will not distribute the clients' private/individual data. Additionally, the organization will pay the assessments for the deals made through the portable application.

Ethical: The versatile application will follow the code of morals and will not mischief in any capacity the clients, the organization, the workers, and society in general. The customers' privileges will be regarded to the most extreme degree. The promoting procedures will be coming clean about the items advertised. The workers will be educated about the application's main goal and objectives. Likewise, the data of clients will be scrambled and put away in a safe information base

III. FEASIBILITY ANALYSIS

The feasibility study stage is a crucial stage since one makes the software engineer see the negative sides of his endeavour and it urges him to refine the item association. In fact, the reachability study can make any project a powerful one in case it is done in the correct way. This deliverable is the

feasibility concentrate for the assignment I will work on my: "APNA BAZAR E-business"

Product reachability: The structure that will be made will help the client with achieving their objectives. Which are developing their business and open up to the online market. This will be refined appreciation to the flexible application that will make the induction to the association's things, demand them, and talk with the association incredibly straight forward. Examining correspondence, the flexible application with the "push" feature will allow the director to send notifications to the customers' phones about new things, progressions, or just advancing the store's things.

Specific and Operational Feasibility: For this endeavour, I will use Java and XML for the flexible application using Android Studio as it is the position IDE for android applications progression. For the backend, I will use SQLite as a database engine; as it is known for its high-unflinching quality, full-featured, and autonomy. More than that, it is the most suitable informational collection for the engine to use with an android application.

Social and Market Feasibility:

Since PDAs are being used by almost everybody, I acknowledge that a compact application for our client "the APNA BAZAR store" will be of mind-blowing advantage. Also, since there are no relative applications for other dynamic attire stores, this endeavour will be interesting and it is needed to transform into the head of athletic clothing store's flexible applications electronic business.

In the wake of pushing toward the client for the how they need their thing to be made and what are the base limits the thing ought to perform; I inferred that the assignment is conceivable to make and to be showed up in the regards to "execution, the responsibility of the dare to the affiliation, cost impediments, and as per characteristics and focuses of the affiliation."

IV. REQUIRED TOOLS

Accessibility Requirements: The framework should be consistently accessible for use. With the exception of unique cases (in the event of reinforcement), it will be declared in advance through message pop-ups.

Convenience necessities: The last portable application will be totally in French since it is focusing on the Moroccan market. It will be easy to understand and simple to utilize.

Execution prerequisites: The versatile application will be created utilizing Android Studio which will, on account of the great calculations that will be utilized, ensure a high execution speed and a limited reaction time.

Adaptability necessities: The normal number of clients of the versatile application is enormous. It is normal that the quantity of clients becomes on inside the following not many years. In this manner, the application should be exceptionally versatile. We will accomplish that thank to some MySQL

arrangements, for example, (MySQL group or MySQL replication)

Practicality prerequisites: The application ought to be viable to permit updates (through the Google Play Store) later on.

Extensibility necessities: The portable application ought to be extensible. It ought to permit refreshing it and adding new highlights later on.

Security necessities: The application should be secure in light of the fact that it manages the private data of the clients. This ought to be performed utilizing the correct encryption of information just got to by the overseer. More than that, the framework should observe these fundamental security rules:

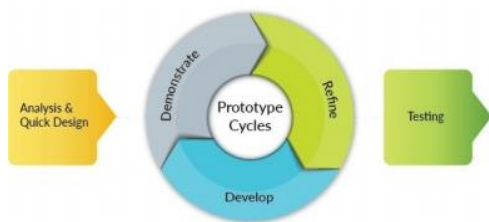
Privacy: Only the administrator approaches client individual data and orders.

Uprightness: Only the clients can alter their own information.

Legitimacy: No one can get to, change or erase other records' data.

V. METHODOLOGY

Rapid Application Development Model



Concerning the framework advancement strategy, I picked the RAD (Rapid Application Development). Since it permits a quick turn of events and conveyance top-notch framework, it was the ideal system for my capstone project. Indeed, I had perpetual contact with the customer all through the various phases of programming measures. I built up each piece of the venture alone and had the customer test it and give me criticism about what ought to be changed or improved. This communication saved me a ton of time, on the grounds that the input was quick. Likewise, the client was associated with the plan.

Likewise, since the venture is an E-Commerce, the need is to satisfy the business need of the organization; which goes hand to hand with the primary standards of the Rapid Application Development philosophy. Additionally, since it is a capstone project, we have cut off times and we need to meet them. This among the essential standards of RAD. The presence of cut off times or "time boxes".

The primary qualities of the RAD model:

"The operational form of an application is accessible significantly sooner than with Waterfall, Incremental, or Spiral systems."

"Since RAD produces frameworks all the more rapidly and to a business centre, this methodology will, in general, create frameworks at a lower cost"

"Focuses on fundamental framework components from client viewpoint."

VI. SOFTWARE ARCHITECTURE

The framework planning I picked in the undertaking is a 3-level application plan. Due to the four boss favourable circumstances, it has; that by a long shot a large portion of them end up being on the outline of the non-significant fundamentals of the undertaking:

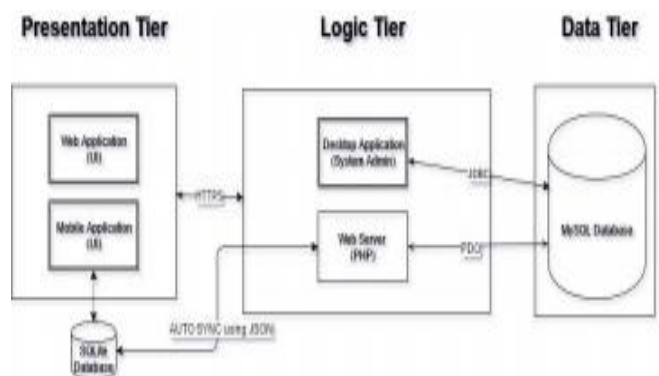
"Sensibility. Since each level is freed from different levels, updates or changes can be done without influencing the application taking everything into account."

"Adaptability. Since levels depend upon the relationship of layers, scaling out an application is sensibly prompt."

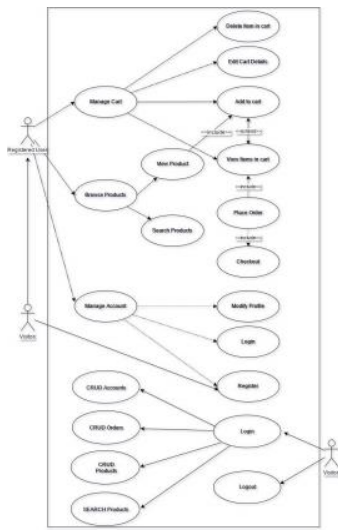
"Adaptability. Since each level can be controlled or scaled uninhibitedly, adaptability is expanded."

"Receptiveness. Applications can manhandle the particular arrangement of empowering the designs and utilizing it effectively adaptable segments, what amasses receptiveness."

Then again, the framework planning I chose looks like the RESTful API plan. The customer interfaces with the web application or the versatile application at the introduction level and make orders. The orders are managed at the thinking level by the chief and a brief timeframe later put aside in the information level. There is comparably an auto synchronization of the SQLite educational file with MySQL one to add new things to the adaptable application.



VII. DESIGN



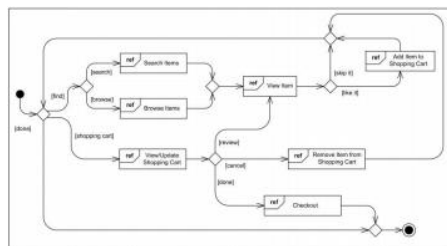
Use Case Diagram:

The graph above is a utilization case chart that addresses the portable client collaboration with the arrangement of the versatile application just as the head's connection with the work area application. The chart shows, contingent upon the client of the framework, the various activities and relationship with one another. Muck is the abbreviation for Create, Read, Update, Delete, which are the 4 essential activities performed by the head of the framework on its various segments. The entertainers are:

Overseer: Creates, Reads, Updates, and erases records, requests, and items.

Guest: Registers have the option to look, view, and request items.

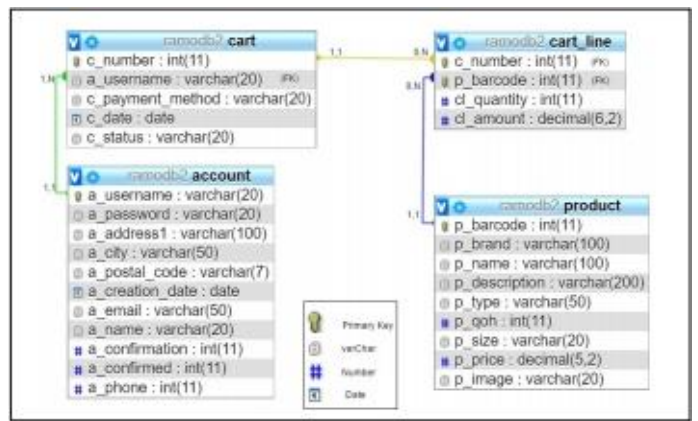
Enlisted User: He needs to login to have the option to make a truck and add items to it. He can likewise adjust his profile.



Interactive Overview Diagram

Association outline graphs give an outline of the progression of control where hubs of the stream are connections or collaboration employments. Collaboration outline graphs do seem as though movement charts that can just have inline associations or communication utilizes rather than summon activities.

DATA MODEL



Entity Relationship Diagram

Subsequent to applying the instruments we learned in the Database Systems class, each table has its essential key and there is no change relationship or a reliance relationship so for this situation, we can infer that these tables are all in 3NF and that makes our usage simpler.

Cart: is a significant substance associated with our business. This element is connected to the record element and truck line element. One truck can be utilized in one record and one record can utilize just one card. In addition, Cart can have many truck lines while a truck line can have just one truck as an asset.

Cart line is another significant substance associated with our business. This substance is connected to the element truck which is depicted already and the Product element. Truth be told, a truck line can have one and only one item while items can be in many truck lines.

Account: The record addresses the records of the clients. It likewise holds a relationship with the table Cart, which is an extraordinary element of the portable application that permits the client to purchase various items online in various amounts.

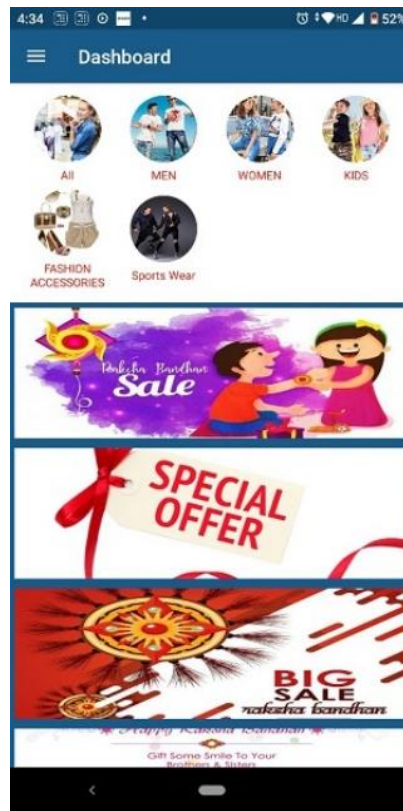
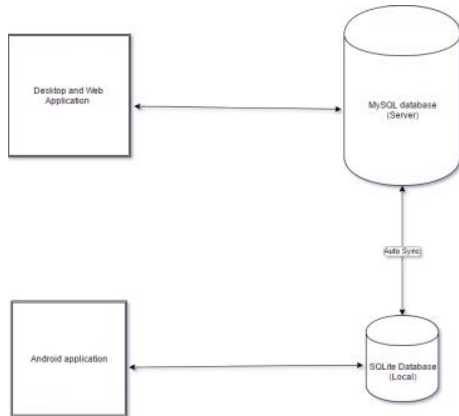
Item: This is one of the focal and heaviest tables of our data set. It contains a rundown of the multitude of items (accessible or not) that have been, are, or will be given by the store. It has a relationship with cart line.

VIII. IMPLEMENTATION

As referenced previously, the execution of the web and work area applications isn't important for my task scope. They were executed beforehand during the Database Design class. Notwithstanding, I needed to do numerous adjustments in work area application to improve it and to adjust it to the portable application. I likewise needed to change a few things in the web application. These progressions took me a few days. Subsequently, I needed to overhaul the data set to adjust it to the necessities of my venture.

Out and out, I went through just about fourteen days improving the past pieces of the venture. Subsequently, I began executing the portable application. Frankly, it wasn't just about as simple true to form, I needed to re-find Android applications' turn of events. I did a ton of exploration and took in a great deal of new things previously and during the

execution of the application. In the first place, I set aside some effort to plan an alluring GUI. I utilized Photoshop for that. At that point I began by actualizing the Login and Register exercises working with a SQLite neighbourhood data set. After the verification, I began dealing with the presentation of the home screen and afterward the items, which are put away in the neighbourhood information base. This SQLite data set is synchronized with the MySQL information base associated with the work area and web applications (facilitated internet), utilizing JSON as follows.

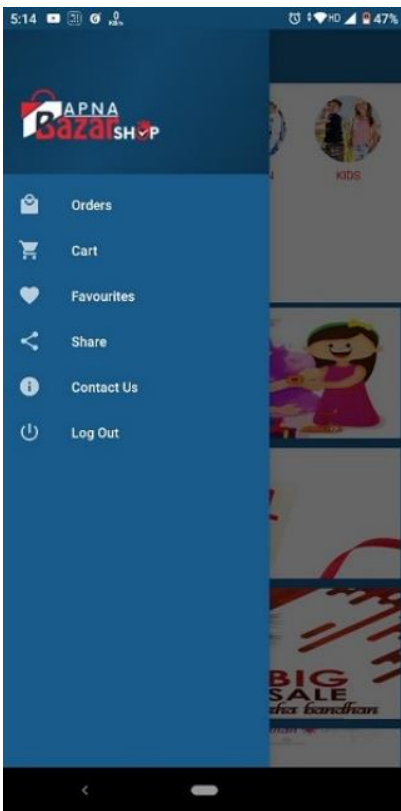


Home and Navigation Drawer

This activity for the authentication of the user. It is the first activity of the application. The user can Login or Sign up if he is not registered yet. This activity is for the authentication of the user.



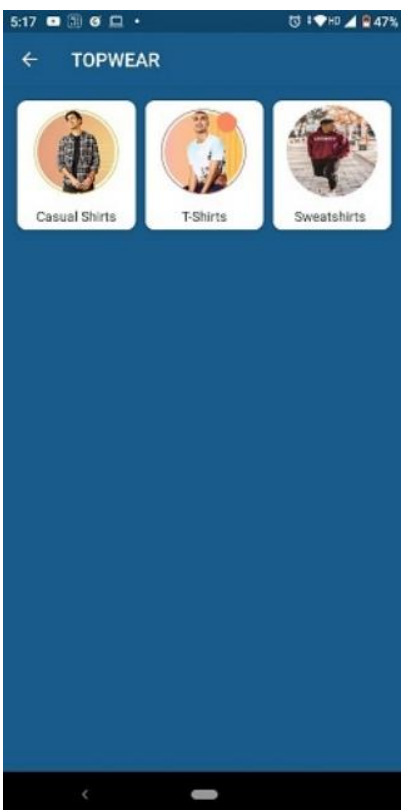
The Login



Navigation drawer menu

Then, the user will be able to view the categories of products and browse the products in each category.

This is some of the code responsible for this activity. After choosing a category, the application displays the list of products under that category in a Grid view. This is done using a function call in the Data Base Helper





After finding the product he is looking for, the user can view its details.



Checkout

Afterwards the user can perform the checkout and send his order.

IX. TECHNOLOGY USED

JAVA: JAVA was used to develop the whole the desktop application

My SQL: MySQL was used for the backend, it is linked to both the desktop and web application.

HTML: HTML was used as a markup language for the web application

CSS: CSS was used for the design of the Web Application
PHP: PHP combined with HTML was used for the scripting.

Visual Studio: Visual Studio was used to modify the code for the web, desktop and mobile application.

Android SDK: Android SDK is used to develop the mobile application

X. TESTING

As referenced previously, the execution of the web and work area applications isn't important for my task scope. They were executed beforehand during the Database Design class. Notwithstanding, I needed to do numerous adjustments in the work area application to improve it and to adjust it to the portable application. I likewise needed to change a few things in the web application. These progressions took me a few days. Subsequently, I needed to overhaul the data set to adjust it to the necessities of my venture.

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XI. CONCLUSION

Clearly, there is still a ton to deal with in the portable application on the off chance that I need to dispatch it to the market. There is likewise the chance of building up the iOS form of the application. This versatile e-shopping store is promising and will unquestionably help Apna bazar's business. Indeed, regardless of whether the application doesn't bring the organization numerous orders (through the application), it could fill in as a promoting methodology. This will be done subsequent to adding the pop-up messages to it and sending notices to clients at whatever point there is

another item or another markdown. That is among the reasons why I decided to have the client register in the application, to have his information. This will permit us to send him advancements to his telephone just as his email address.

I think that its stunning how I learned portable application improvement utilizing Android all through the semester while building up the application simultaneously. I utilized Youtube.com instructional exercises and stackoverflow.com answer for every single issue I face while building up the application.

More than that, dealing with this capstone project was an incredible open door for me to put the information, I've procured during these four years, into training. In any case, it showed me a portion of my powerless focuses and assisted me with changing them into solid focuses.

Presently, I realize how to accumulate necessities, plan, actualize, and test programming. What's more, I figured out how to actualize the worker side, the customer side and the information side, every one independently from the other one.

I likewise had the chance to figure out how to dissect the social, mechanical, prudent, natural, political, lawful, and moral parts of a project and receive the best in return.

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