

Atmanirbhar Mahila ~Saheli Ehaat

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Abstract: To strengthen the economy of women from all strata of the society after facing COVID-19 pandemic situation leading to economic crisis all over. One should take inspiration of ‘*Atmanirbhar Bharat*’ viz. *self-dependent India* [7], concept of our honorary PM. Shri Narendra Modiji. So, to make a try, like bud in huge garland we would like to make a project to strengthen the economy of women [7]. Our motive is to promote women empowerment. Hence, we are creating online digital platform for Mahila Bachat Gats (Self-Help Groups) of under-privileged and any strata's of society, urban or rural women to empower them by giving opportunity to market their own products and services and enhance their talent and skills to strengthen economy. We are using a balance of gamification concepts to maintain the encouragement and modern social-enhancement interface.

Keywords: Uploading product and details, viewing the products, skill development, social media, responsive, subtitles, user-friendly, image, motivation encouragement, computer, strengthen economy, HTML, CSS, Python-Flask.

I. INTRODUCTION

The COVID-19 pandemic has been a hurricane to India, especially since many sectors and industries has faced heavy loss when the virus storm hit Indian sector very tidily. The Micro, small and medium enterprises (MSMEs) the backbone of all Indian sectors and are engaged in manufacturing and export activities[7]. Due to lockdown, all MSMEs are shut and are in a pause mode leading to affecting the Indian economy[7]. Considering the background of social-distancing due to corona (Pandemic) situation the physical exhibitions cannot be arranged full-flesh, so to provide Mahila Bachat Gat, we are creating this website. This website will provide online platform to the Mahila Bachat Gat to sell and exhibit their products to the purchasers and individuals. And also illustrate the various services. Not only it will provide digital platform for marketing and sales but also enhance their skills and showcase their talent, where in it will provide the links to various courses to enhance their skills. This website will provide information and guidance for self-dependent women. It's a dream to make all literate and illiterate women to earn their own money. So that they can enhance girl child for education for better India.

This Project is aimed for developing a web application that represents online shopping of products and services made and offered by group women's savings. Using this website, the Bachat Gats can increase the efficiency of their services. This will be one of the applications to improve the marketing of mahila bachat gats products. This web application will involve all the features of online shopping as well as assist in all the fields related to empower women.

This software will help customer to find different products, their features, and new updates easily. The customers will register first. Products will be uploaded by any on-site registered mahila bachat gat having government registration. Admin will have to manage products stock, price of products discounts, events, stories(status), posting products which are uploaded by mahila bachatgat to social media page of website etc. The web based software will help in not only marketing products but empower the women's as website provides all the information about the women like personal hygiene, anatomy of females, laws and schemes in India for women, bank facilities available.

II. LITERATURE SURVEY AND REVIEW

- E-commerce means electronic commerce. It means dealing in goods and services through the electronic media and internet [1]. E-commerce involves carrying on a business with the help of the internet and by using the information technology like Electronic Data Interchange (EDI) [1].
- ECommerce relates to a website of the vendor on the Internet, who trades products or services directly to the customer from the portal [1].
- The customers who are going for online shopping are very much concerned about the important things for online shopping. 31.28% people gives importance to security for online shopping, 27.37% people give importance to privacy for online shopping, 12.29% people give importance to trust for online shopping and 29.05% people gives importance to all of the above for online shopping.
- Indian E-Commerce portals provide goods and services during a sort of categories like apparel and accessories for men and ladies, health and wonder products, books and magazines, computers and peripherals, vehicles, collectibles, software, consumer electronics, household appliances, jewellery, audio/video entertainment goods, gift articles, land and services, business and opportunities, employment, travel tickets, matrimony etc [4]. Examples:

- www.indiayplaza.com, www.thebestofindia.com,
- www.khoj.com, www.sify.com,

We came across many sites but there is lack of websites which would showcase products of Mahila bachatgats. We found two websites which are as follows who have same motive like our but has few limitations: - a: e-bachatgat.com, b: mahila ehaat (government site)

- i.Less user-friendly GUI.
- ii.Limited in-site authentication for mahila bachat gats enrolling.
- iii.Less information provided about scaling and empowering.
 - i.Globally for all women entrepreneurs
 - ii.No in-site launching /uploading of products by vendor
- iii.C: Base & Research Papers

No paper on particular topic referring to the E-Commerce portal website research paper. Survey can be tabulated as below:-

TABLE I LITERATURE SURVEY SUMMARY

Literature survey				
SRNo.	Reference Paper (Write Paper Title) / Field Visit (Field details)/ Other Sources (appropriate source details)	Seed Idea/ Work description	Problems found / Research gap / Work gap	Your solution / Comment
1	Ebachatgat.com	This website provide platform to sell their product	1.Less user-friendly GUI. 2.. Limited in-site authentication for mahila bachatgat enrolling. 3.only in English	1.Develop user friendly GUI. 2.providing skill development information for not just providing platform but also empowering them. 3.providing Marathi/Hindi subtles.
2	Mahila E~haat	It is government site its globally for all entrepreneur	1.Globally for all women entrepreneur. 2.No in-site launching/uploading of products by vendors. 3. there is translation of full page in familiar language	1.Develop website to sell and buy products i.e., launch and upload products directly on website, no need of travelling to other websites is required. 2.marathi/Hindi subtles.
3	Ecommerce platform overview-future	Account and product management	-	Complete information about seller and products and corresponding database.

III. PROBLEM DEFINITION

To create online digital platform for Mahila Bachat Gats (Self-Help Groups) of under-privileged and any strata's of society, urban or rural women to empower them by giving opportunity to market and sell their own products and services and enhance their talent and skills to strengthen economy.

IV. METHODOLOGY

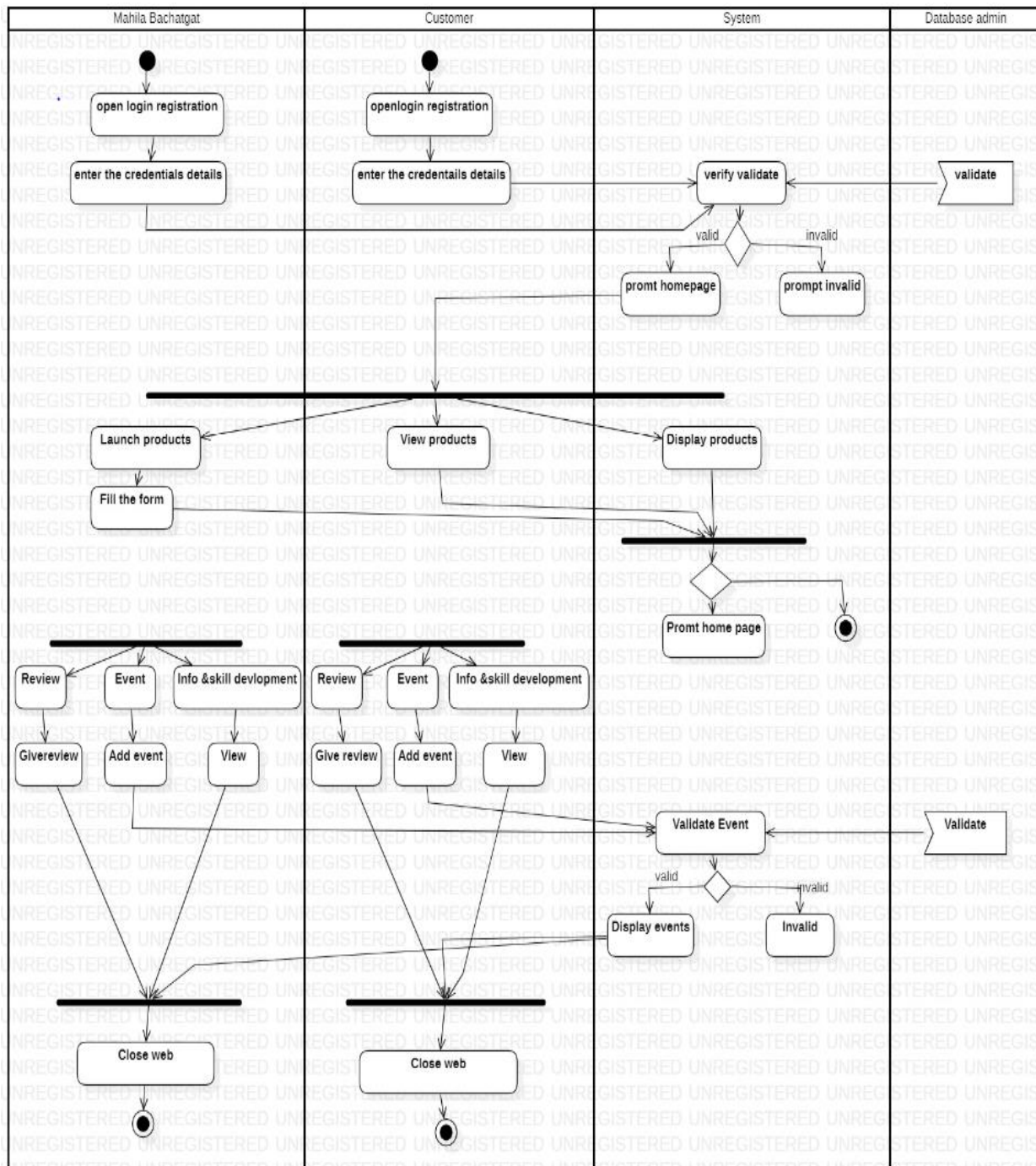


Fig. 1 Activity diagram

B: Path Flow and Features of Software:

- In system we are implementing sign up/registration page for Mahila bachatgats as well as customers, where they will be registered and then they will have a login id and password available for them.
- Customer will view the products and services on this website and can directly view the details and contact the bachatgats, view on our website’s social media pages named” Atmanirbhar Mahila~ Saheli Ehaath”. Also all other features are available for customers like viewing the details of various events, grooming lectures online n around them ,also they can upload events information which will be displayed after verification by admin, viewing information, learning various skills from in-site YouTube videos, adding review, placing order directly via contacting owner or online wallet and cash on delivery etc. .

- This system keeps all records of products services and in its users. Admin will have to manage products and services, price of products and services (Using ML) discounts, events verification etc. through registered account.
- The website will help in easy maintaining and updating products in the website for the administrator. User can search for required different categories of products. User can give his/her review about product, improvement of product. Admin can give reply to those reviews easily.
- Unauthorized user cannot add product first it needs to be registered and then can add.
- This System gives an automated output from resulting algorithm for price increment for the best reviewed products and services so Mahila bachat gats would get more profit margin.
- Very user-friendly graphical user interface with dual language subtitles and responsive design as mobile friendly.
- Covers each category of products produced and manufactured by Self-help groups. website intended for both customers and Mahila Bachat Gats.

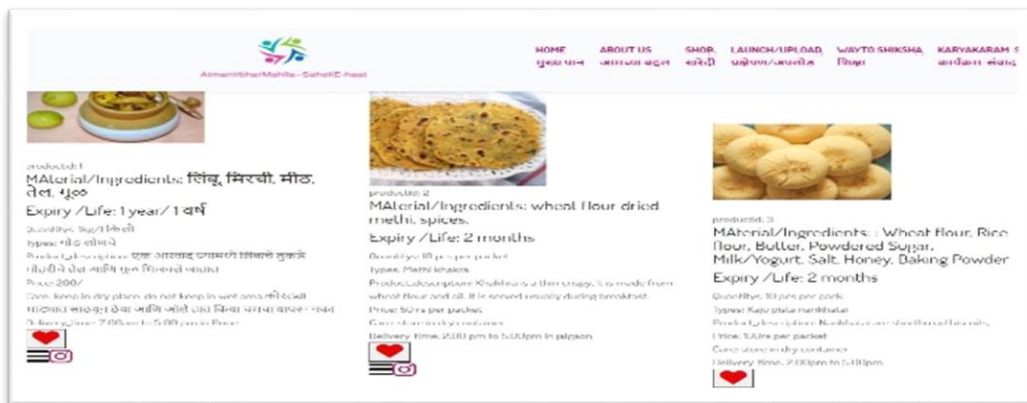


Fig. 2 Uploaded Products

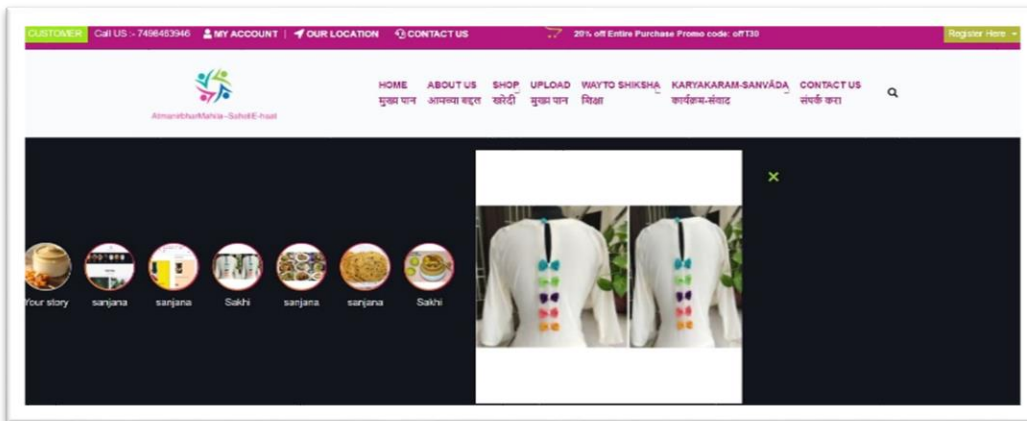


Fig.3 A story feature

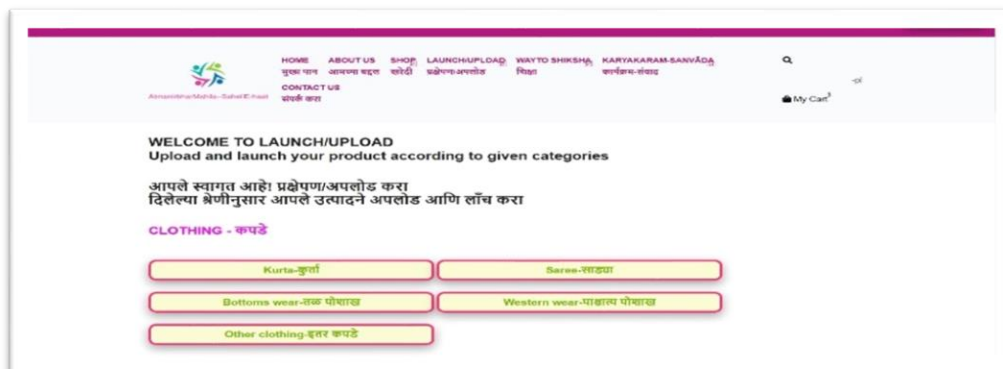


Fig. 4 Graphical user interface

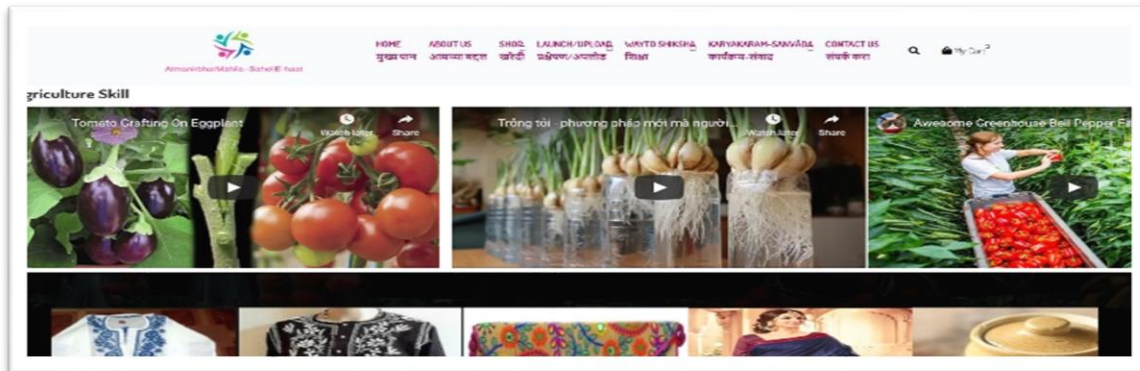


Fig. 5 A inbuilt You-Tube



Fig. 6 Home Page

Fig. 2, Fig. 3, Fig. 4, Fig. 5 and Fig.6 shows glimpses of website, its user-friendly YouTube and social media InSite. In our implementation, the product uploaded by the Mahila bachat gat saves in database and is displayed for customers to view, rate, review.

The data will be stored in structured relational database i.e., MySQL .in xamp server.it is very convenient and highly secured database server; hence data is safe, secured and easily retrieved.

PRICE PREDICTION /INCREMENT USING MACHINE LEARNING

What is machine learning: - Machine learning is an application of artificial intelligence (AI) that provides systems the ability to automatically learn and improve from experience without being explicitly programmed. Machine learning focuses on the development of computer programs that can access data and use it to learn for themselves.

What is market basket analysis: - Market basket analysis is a data mining technique used by retailers to increase sales by better understanding customer purchasing patterns. It involves analysing large data sets, such as purchase history, to reveal product groupings, as well as products that are likely to be purchased together.

Types of market basket analysis: - Predictive market basket analysis: This type considers items purchased in sequence to determine cross-sell.

Differential market basket analysis: This type considers data across different stores, as well as purchases from different customer groups during different times of the day, month or year. If a rule holds in one dimension (like store, time period or customer group), but does not hold in the others, analysts can determine the factors responsible for the exception. These insights can lead to new product offers that drive higher sales [6].

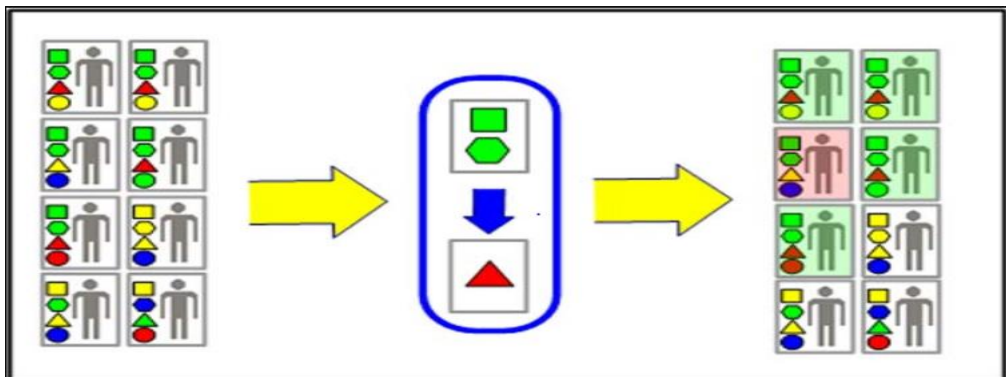


Fig: 7 Market – basket analysis

$$\begin{aligned}
 \text{Rule: } X \Rightarrow Y & \begin{cases} \text{Support} = \frac{\text{freq}(X, Y)}{N} \\ \text{Confidence} = \frac{\text{freq}(X, Y)}{\text{freq}(X)} \\ \text{Lift} = \frac{\text{Support}}{\text{Supp}(X) \times \text{Supp}(Y)} \end{cases}
 \end{aligned}$$



Rule	Support	Confidence	Lift
$A \Rightarrow D$	2/5	2/3	10/9
$C \Rightarrow A$	2/5	2/4	5/6
$A \Rightarrow C$	2/5	2/3	5/6
$B \& C \Rightarrow D$	1/5	1/3	5/9

Fig: 8 Association rules in Market- basket analysis

Price Increment for most selling product- Using Market Basket Analysis Algorithm

Market basket analysis algorithm: - C_k : Candidate itemset of size k

L_k : frequent itemset of size k

$L_1 = \{\text{frequent items}\}$;

for ($k = 1$; $L_k \neq \emptyset$; $k++$) **do begin**

C_{k+1} = candidates generated from L_k ;

for each transaction t in database **do**

increment the count of all candidates in C_{k+1} that are contained in t L_{k+1} = candidates in C_{k+1} with min_support **end**

return $U_k L_k$;

Price Prediction Algorithm :-

X=test search agent

While($i <$ maximum number of iterations)

For every search agent

Update A,C,P

If 1($p < 0.5$)

If 2($A < 1$)

Else if($A > 1$)

Select random search agent

Update the position of current search

End if 2

End for

End while

VI. ADVANTAGES

- We are creating online digital platform for Mahila Bachat Gats (Self-Help Groups) of under-privileged and any strata's of society, urban or rural women to empower them by giving opportunity to market and sell their own products and services and enhance their talent and skills to strengthen economy.
- It's a dream to make all literate and illiterate women to earn their own money. So that they can enhance girl child for education for better India.
- This website will provide online platform to the Mahila Bachat Gat to sell and exhibit their products to the purchasers and individuals. And also illustrate the various services.
- Not only it will provide digital platform for marketing and sales but also enhance their skills and showcase their talent, where in it will provide the links to various courses to enhance their skills.
- This website will provide information and guidance for self-dependent women.
- Attractive and modern interface with inbuilt dual language subtitles to avoid further confusions of translating page.
- Information about Laws and women rights, Personnel hygiene and care, Inspiring stories and achievements etc for grooming.
- Skill-development videos hence visitors would get inspired and start their own businesses
- Responsive web design is a modern need. our website is responsive website ie changes its layout to fit the device and any browser size.

VII. SCOPE OF THE FUTURE

Social mobilization- (organizing poor in small groups)

*website will provide the information

Training- (capacity building)

Finance- (bank credits and government subsidy)

Leaderboard, rewards, bonus points may be introduced to increase motivation and have engagement according to gamification [5].

Should get easy collaboration of gamification and the website's motto. There should not negative engagement and demotivation among the customers and self-help groups [5].

Mahila bachatgat should create the account to sell their products and services as website should have all information and their ethnicity.

To develop software that can be used to store more amount of data about customer and to easily contact them so it can reduce the manual work and also provide the platform for publishing Bachat Gat products.[4] Some internet portals provide all categories of goods and services in a single site; they are targeting customers of every possible product or services.

RESULTS / OBSERVATIONS

TABLE I - CONDITIONS OF TEST ENVIRONMENT / PARAMETERS OF 'UNKNOWN' ENVIRONMENT

Function/Event	Result
Environment type	Real world, Real time
Background type	Web portal,
State of Background	Social welfare
Requirement	Using mobile
Number of types of user	Mahila bachat gat, customer
User friendly	YES
Safety and security Of data	YES

Covers all categories	YES
Cover all requirements captured in frames	In process

TABLE II - SPECIFICATIONS OF SYSTEM USED FOR TESTING

<i>Specification</i>	<i>Result/observation</i>
Operating system	Windows 7 or above 32bit 64bit
Software	Internet explorer 11, Chrome, sublime, XAMPPv3.2.4, Visual Studio
Language	Html5, CSS3, bootstrap, python-flask 3.8.2,
System Specification	2.4 GHz with 2 GB RAM
Language Translator	Google Translator

TABLE III – WORKING RESULTS

Function/Event	Result
Test duration	15 minutes 0 seconds
number of pages	55 and more
Requirement: Uploading the products and services	Successful
Requirements: Displaying product and services	Successful
Social media pages and linking	Working
Adding events and news	Successful

Contact and feedback	Working
Enquire and feedback	working
Price prediction and increment	To be done
Database Operations	Storing and fetching data from MySQL database from xampp server (.007 sec for execution of query)working

VIII. CONCLUSION

This study shows that we are doing this project to create online digital platform for Mahila Bachat Gats(Self-Help Groups) of under-privileged and any strata's of society, urban or rural women to empower them by giving opportunity to market and sell their own products and services and enhance their talent and skills to strengthen economy.

They can publish their different types of products through this site and increase their clients. This project would be very useful to them for selling their product of different categories using filters and also publishing their Bachat Gat products wherever they want.

It is basic need to manage the data using database management because of User friendly interface. User will feel easy to handle the website and website will have complete information and details.

Online shopping is the best way to purchase any item but be careful because there may be some fake products on different sites. ' Only purchase those items which can be recognised easily that item is fake or not or choose according rating of buyers. ' But not to worry, on my site you will get all items genuine and trusty, just check once here before buy anywhere. Here, I have to conclude that this website will not only be E-commerce website but a social welfare website genuinely meant for WOMEN EMPOWERMENT and ATMANIRBHAR BHARTIYA MAHILA [7].

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