

# **Final Year Project Proposal**

## **SHOPPING LIST ASSISTANT**

**<submitted by>**

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**<Supervisor>**

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**<Coordinator>**

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## **List of Abbreviations and Acronyms**

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## Final Year Project Proposal

### Section – 1

#### 1.1 Project Identification

<b>ProjectTitle:</b> <b>Shopping List Assistant</b>		
<b>Group Leader (GL):</b>		
1.	Name:	<b>Kashan Rehan</b>
	Reg #:	15055
	CGPA:	2.36
	Mobile # :	03352163378
	Signature:	
	Email:	Kashanrehan0@gmail.com
<b>Group Members (GM's):</b>		
2.	Name:	<b>Syed Moiz Hasan</b>
	Reg #:	12988
	CGPA:	2.4
	Mobile # :	03142030756
	Signature:	
	Email:	Moizhasan756@gmail.com
3.	Name:	<b>Syed Furqan Hassan</b>
	Reg #:	12382
	CGPA:	2.6
	Mobile # :	03363894217
	Signature:	
	Email:	Syedfurqan3000@yahoo.com

**What technology is core to your product?***(Please mark ☒ where applicable)*

- |   |  |
|---|--|
| <input type="checkbox"/> 3D/4D Printing   | <input type="checkbox"/> Augmented Reality / Virtual Reality |
| <input checked="" type="checkbox"/> Big Data, Artificial Intelligence                   | <input type="checkbox"/> Blockchain                          |
| <input type="checkbox"/> Cloud  | <input type="checkbox"/> Neurotech                           |
| <input type="checkbox"/> Robotics   | <input type="checkbox"/> Shared economy                      |
| <input type="checkbox"/> The Internet of Things   | <input type="checkbox"/> Wearables, Implantables             |
| <input checked="" type="checkbox"/> Others (specify): <u>Android mobile Application</u> |  |

**What is the target market(s) for the products?***(Please mark ☒ where applicable)*

- |   |   |
|---|---|
| <input type="checkbox"/> Automotive, aviation, marine             | <input checked="" type="checkbox"/> Business, marketing, finance  |
| <input type="checkbox"/> Defence, security, safety                | <input type="checkbox"/> Education and training                   |
| <input type="checkbox"/> Environment, water management            | <input type="checkbox"/> Entertainment, tourism, sport/recreation |
| <input checked="" type="checkbox"/> Food, livestock, agribusiness | <input type="checkbox"/> Healthcare                               |
| <input type="checkbox"/> Infrastructure, housing & transport      | <input type="checkbox"/> Mining equipment technology & services   |
| <input type="checkbox"/> Oil, gas, energy                         | <input type="checkbox"/> Textiles, clothing, footwear             |
| <input type="checkbox"/> Others (specify): _____                  |   |

**Other Organizations Involved in the Project:** *(Please identify all affiliated organizations collaborating in the project, and describe their role/contribution to the project.)***Academic Organizations:**

#	Organization Name	Role / Contribution
1.	IQRA UNIVERSITY	Final Year Project
2.		

**Industrial Organizations:**

#	Organization Name	Role / Contribution
1.		
2.		

**Funding Organizations:**

#	Organization Name	Role / Contribution
1.		
2.		

**Key Words:** *(Please provide a maximum of 5 key words that describe the project)*

Shopping assistant , artificial intelligence, android application

**Research and Development Theme:** *(please identify the Research Theme.)*

We go through many shopping list applications but the uniqueness in our application is that we are introducing recommendation system in the application to let the people easily differentiate in products according to their budget

**Project Status:** (Please mark ☒)

☒ New    ☐ Modification to previous Project

☐ Extension of existing project

**Project Duration:**                      12Months

**Proposed Budget:**                      30,000PKR

**The Problem:**

*(Please describe the problem / opportunity / gap / need that you want to address/solve. **Maximum 300 words.**)*

People face difficulties in finding the product under their budget because some times price of the product can never be same and people get multiple products without knowing that the products they are buying will fit in their budget or not.

**Following are some of the well-known (identify the best known if possible) existing solutions to this problem. Their known strengths and weaknesses are also provided.**

*(Maximum 200 words.)*

The main purpose for this app is to provide users with a platform to do shopping in their budget. The major weaknesses of this application is that customer have to compromise on product according to their budget.

**Our solution will address the following weaknesses of above mentioned solutions.**

*(Maximum 200 words.)*

People can easily create list through our application .so that they can easily get to know the product price according to their budget

**We will use the following techniques to achieve improvements mentioned above.**

*(Maximum 200 words.)*

Mobile Application:

A mobile application for users to create shopping list according to their budget

Artificial intelligence recommendation system technique

**Synopsis:**

*(A brief description of the idea, in non-technical language, explaining product benefit, target market, basic technology, commercial partners, investors, and potential customers. **Maximum 200 words.**)*

Shopping list app turns all your devices into ultimate family organizers with a shared calendar, shopping lists, to do lists and more so everyone can access on the go. This app not only allows kids add their favorite snacks to a shared family list, but also includes a calendar to keep track of everyone's schedules. People get the notification at the start /end of the month for shopping.



## Section– 2

### 2.1 Background

#### Scope of the Project:

Shopping list app turns all your devices into ultimate family organizers with a shared calendar, shopping lists, to do lists and more so everyone can access on the go. This app not only allows the kids add their favourite snacks to a shared family list, but also includes a calendar to keep track of everyone's schedules. People get the notification at the start /end of the month for shopping

#### **SHOPPING LISTS**

- Shared grocery lists the whole family can access .retrieve lists when you're at the store and quickly cross off items or add new ones while you shop  
See items added by other family members when you're on the go, no more coming home with everything but the one thing you really needed
- Once the user create list it will be saved and the next time when the user wishes to create a list it will ask to update the previous list or create a new one
- Shopping list Assistant uses artificial intelligence and machine learning to understand what items you have to buy according to your budget .
- Shopping list assistant easily helps people to buy quality products in their budget

#### **TO DO LISTS**

- Create a shared to do list, chore checklists for the kids
- Have your to do items right there in your pocket to remind yourself or send them to a family member to remind them
- Create as many lists as you want - to do lists are a great place to keep planning checklists like packing lists, the kids camp list, emergency supplies and more

**Literature Review:** *(Detailed summary of what all has been done internationally in the proposed area quoting references and bibliography. Maximum 1500 words.)*

There are many applications that provide the opportunity to make list of groceries , daily tasks and share lists with other

- <https://listonic.com/>
- <https://www.outofmilk.com/>
- <https://www.ourgroceries.com/overview>
- <https://www.cozi.com/>

**Current State of the Art:** *(Please describe the current state of the art specific to this research topic. Maximum 500 words.)*

There are similar applications in the market internationally which allows users to create shopping list but no such applications have recommendation system .

**Challenges:** *(Please describe the challenges, specific to this research topic, currently being faced internationally. Maximum 500 words.)*

Some of the challenges faced internationally are:

- The product recommended to the user may not satisfy the desires of the user

**Motivation and Need:** *(Please describe the motivation and need for this work. Maximum 500 words.)*

- Learning new programming languages for project
- Learning the real project implementation
- Learning business strategies from project
- Learn about artificial intelligence
- Learn to develop mobile application

## 2.2 Outcomes and Benefits

**Expected Outcomes:** *(Provide a list of proposed project outputs including publications, databases etc.)*

- To provide ease to the users to create and manage their shopping list
- Customers easily select the product in their budget
- If the product price is not in a range of the user. This app will help in choosing the product according to their budget

**Key Benefits and Beneficiaries:** *(Please identify clearly the benefits and potential customers/beneficiaries of the project.)*

- Shared grocery lists the whole family can access
- Create a list of shopping
- A great place to keep planning checklists like packing lists etc

**Technology Transfer/Diffusion Approach:** *(Please describe how the outputs of the project will be transferred to the beneficiaries/customers. **Maximum 500 words.**)*

- The user has to download the app on their mobile and register for a profile
- Registered users can login to use the mobile application
- The user store product by manually writing the product name and its price
- The next time the user will go to buy product and if the product price increases then the application will help the user to buy product in their budget

## 2.3 Objectives

*(Please describe the measurable objectives of the project and define the expected results. Use results-oriented wording with verbs such as 'to develop..', 'to implement..', 'to research..', 'to determine..', 'to identify..'. **The objectives should not be statements and should actually specify in simple words what the project team intends to achieve (something concrete and measurable/ deliverable). Fill only those objectives that are applicable to the proposed project.**)*

**Research Objectives:** *(if any)*

- To introduce a mobile application which helps the user to buy products in their budget .

**Academic Objectives:** *(if any)*

- To Develop a Mobile Application
- To Create a working application using Android

**Commercial Objectives:** *(if any)*

- <type here>

**Other Objectives:** *(if any)*

- <type here>

## 2.4 Research Approach

### Development/Research Methodology:

*(Please describe the technical details and justification of your development and research plan. The block diagrams, system flow charts, high level algorithm details etc. have to be provided in this section. **Maximum 3000 words.**)*

We will be using agile model in our project as this model falls into our project and explains our project requirements completely.

- **Requirements** - Define the requirements for the iteration based on the customer and stakeholder feedback.
- **Design**- Design and develop software based on defined requirements.
- **Testing** - QA (Quality Assurance) testing, internal and external training, documentation development.
- **Deployment** - Integrate and deliver the working iteration into production.

### Key Milestones and Deliverables:

*(Please list and describe the principal milestones and associated deliverables of the project. The timing of milestones is also to be shown in the Gantt chart in Annexure-A. **Quarterly deliverables are preferred.**)*

S. No.	Elapsed time since start of the project	Milestone	Deliverable
1.	Week 01 – 04	Idea discussion	Project Finalization
2.	Week 05 – 08	Requirement Modeling	Requirement gathering
3.	Week 09 – 12	Dfd , use case ,ERD diagrams	Scope, Diagrams & Wireframes
4.	Week 13 – 15	Documentation Review	Documentation Complete
5.	Week 16 – 19	Frontend Development	UI/UX design
6.	Week 20 – 25	Backend Development	Database ,recommendation system
7.	Week 26 – 28	Testing	Test cases
8.	Week 29 – 30	Deployment	Deployed
(Please add more rows if required.)			

## 2.5 Risk Analysis

*(Please list the risks that may cause delays in, or prevent implementation of, the project. For each risk estimate the likelihood, likely impact/consequences on the project and steps to minimize/avoid the risk.)*

Risk	Likelihood (Low, Med, High)	Impact	Mitigation
No internet access	high	If the internet stops working then our app will not work as our app needs internet connection to show data.	Make sure to have internet connection
Team's lack of expertise	High	High	Resolve by learning and help of supervisor
Security risk	High	High	Resolve by implementing security

## Section – 3

### 3.1 Resources& Other Requirements

#### Project Team:

*The numbers in the table below must tally with the HR Cost sheet in the Budget file.*

<b>Title / Position</b>	<b>Number</b>
Team Leads	Kashan Rehan
Researchers / Developers	Kashan , Syed Moiz Hasan, Syed Furqan Hassan
Researcher / Development Assistants	
Support Staff	<u>Dr.Aarij Mahmood Husaan</u>
Contract Staff (please specify)	
Others (please specify)	
Add more rows if required	

#### Team Structure:

*(Please define the team structure (organogram) and role/key responsibilities of each member. If in collaboration with another partner, the division of manpower at various locations of partners be provided.)*

<pasteorganogram here>

<b>Title/Position (of each member)</b>	<b>Role/Key Responsibilities</b>	<b>Minimum Qualification Required</b>	<b>Expertise / Background Required</b>	<b>Minimum Experience Required (years)</b>
Kashan Rehan	Front-end and back-end development	BS(CS)	Java, Android development	
Syed Moiz Hasan	Front-end and back-end development	BS(CS)	Java, Android development	
Syed Furqan Hassan	Front-end and back-end development	BS(CS)	Java, Android development	

**Remarks:**

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1. Name &Signature of Supervisor: Dr.Aarij Mahmood Hussaan

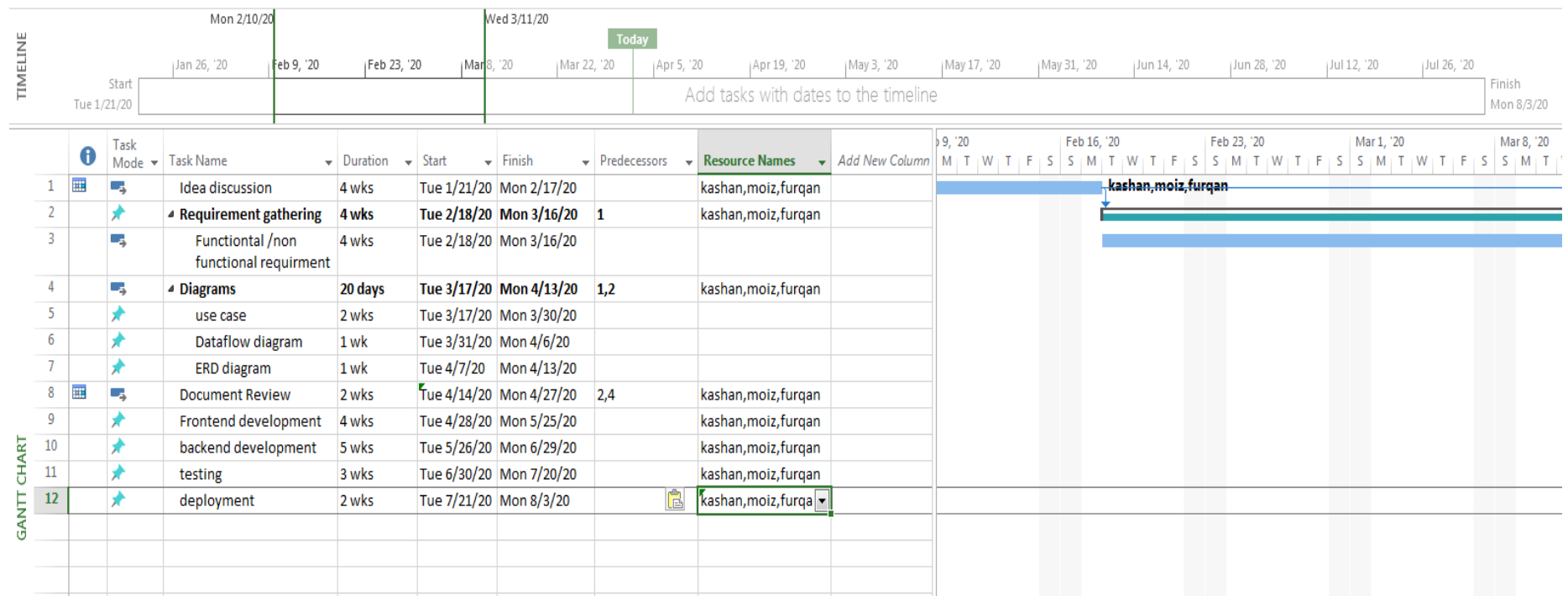
2. Name &Signature of Co-Supervisor: \_\_\_\_\_

3. Name &Signatures of FYP Coordinator: Dr.Aarij Mahmood Hussaan

## Annexure–A: Project Schedule / Milestone Chart

*(Project schedule using MS-Project (or similar tools) with all tasks, deliverables, milestones, cost estimates, payment schedules clearly indicated are preferred.)*

**Example:**





## Annexure–B: Proposed Budget

Please use the embedded Excel Worksheet for providing budget details.

Double click the icon to open the worksheet.

(Do not enter the summary amounts (Sr.# 1-6) as they are automatically updated.)			Please read Guidance Note
Sr.	Description	Amount (Rs)	
	<b>Heads of Expenditure</b>		<b>Guidance Note</b> 1. This worksheet is for the convenience of the user. 2. The filled in cells are for the project. 3. Total amounts are updated automatically. 4. Rows and Columns are included in the project. 5. Services should not be included in the project. 6. Please do not enter the project details. 7. Proper justification should be provided again.
1	Technical HR Deployment Cost	Rs.120,000	
2	Support Staff	Rs.96,000	
3	Equipments	Rs.165,000	
4	Traveling	Rs.271,200	
5	Boarding & Lodging	Rs.43,000	
6	Miscellaneous	Rs.52,000	
	<b>Sub Total:</b>	<b>Rs.747,200</b>	
7	<b>Audit Charges</b>	Rs.25,000	
8	<b>Contingency</b>	Rs.50,000	
9	<b>Institutional/Organizational Overheads</b>	Rs.200,000	Change these values as deemed necessary.
	<b>Total Budget:</b>	<b>Rs.1,022,200</b>	
<b>Funding Sources:</b> (Please indicate funding sources for the project)			
Sr.	Funding Source	Amount (Rs)	% of Total Funding
1	National ICT R&D Fund	Rs.1,022,200	100%
2	Internal Funds		0%
3	Other Sources (specify)		0%
4	(Add more entries, if required)		
	<b>Total:</b>	<b>Rs.1,022,200</b>	100%

## Annexure–C: Business Canvas Model

Lean Business Model Canvas		Model Name:	
<b>Problem</b> Top 3 problems	<b>Solution</b> Top 3 features	<b>Unique Value Proposition</b> Single, clear, compelling message that states why are you are different and worth buying	<b>Unfair Advantage</b> Can't be easily copied or bought
<b>Key Metrics</b> Key activities you measure		<b>Channels</b> Paths to customers	
<b>Customer Segments</b> Target customers			
<b>Cost Structure</b> Customer acquisition costs Distribution costs Hosting People, etc		<b>Revenue Streams</b> Revenue model Lifetime value Revenue Gross margin	

## **Bibliography**

<https://listonic.com/>

<https://www.outofmilk.com/>