**System Requirements**

**~~<~~****~~P03 >:<MunasibMall.pk>~~**

**P03 :MunasibMall.pk**

**Remove angle brackets below**

**<team member names & idz>**

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| --- | --- | --- |
| **Content** | **Totals** | **Obtained** |
| Introduction | 5 | 3 |
| System actors | 10 | 10 |
| Functional Requirements | 40 | 40 |
| Non-functional requirements | 20 | 13 |
| Who did what | 5 | 5 |
| Review checklist | 5 | 5 |
| Overall formatting/template | 5 | 5 |
| Github folder structure | 10 | 10 |
| Late submission penalty | -20 |  |
| **Grand Total** | **100** | **91** |

**Table of Contents**

[1. Introduction 3](#_Toc82081697)

[2. System Actors 4](#_Toc82081698)

[3. Functional Requirements 5](#_Toc82081699)

[4. Non-functional Requirements / Quality Attributes 6](#_Toc82081700)

[5. Who Did What? 7](#_Toc82081701)

[6. Review checklist 7](#_Toc82081702)

# Introduction

A mobile e-commerce centric application that will allow different merchants to have multiple pages [only static web pages or will it be a dynamic application?] of their own on the platform. Merchants will be given more autonomy than traditional services like Daraz.pk. They will also be given some customizability in making their page. Customers would be able to see specific pages or ‘shops’ as well as search for products in all of the shops on the platform.

[Wouldn’t the platform allow merchants to sell and customers to buy products?]

The introduction should give comprehensive overview of the system.

# System Actors

<List down the actor names and give a 2-3 lines description of the role of each actor>

|  |  |
| --- | --- |
| **Actor Name** | **Description** |
| Admin | Administrator that can monitor merchants and their products on the basis of different indexes. Most privileged actor. |
| Merchant | Merchant has the ability to create and manage multiple stores and make product listings on them. |
| Customer | A registered or unregistered user that can make purchases from different merchants. |
|  |  |

# Functional Requirements

<Write system requirements from users’ (actors) perspective. Actor names have been highlighted in the sample requirements below. You may group requirements according to actors or modules>

|  |  |
| --- | --- |
| **Requirements** | |
| **Sr#** | **Requirement** |
| 1 | As an Admin, I want to be able to login and see merchant profiles and stores by searching. |
| 2 | As an Admin, I want to see merchant profiles sorted using different indexes like highest grossing, best rated etc. |
| 3 | As an Admin, I want to be able to remove specific product listings, temporarily /permanently disable merchant accounts. |
| 4 | As an Admin, I would like to see reviews for specific products and average rating of merchants. |
| 6 | As an Admin, I would like to be able to disable Customer accounts. |
|  |  |
|  | As a Merchant I would like to be able to log in and see a dashboard with my stores. |
|  | As a Merchant I would like to be able to edit my profile. |
|  | As a Merchant I would like to be able to log out of the system. |
|  |  |
|  | As a Merchant I want to create multiple stores. |
|  | As a Merchant I would like to be able to delete my stores. |
|  | As a Merchant I would like to be able to edit my store information. |
|  | As a Merchant I would like to have a search feature to search stores by name. |
|  |  |
|  | As a Merchant I want to list multiple products in each store and modify product details. |
|  | As a Merchant I want to be able to search products of my store based on different filters. |
|  | As a Merchant I want to delete products from my store. |
|  | As a Merchant I would like to be able to upload/delete product images. |
|  | As a Merchant I want to manage my inventory and product categories. |
|  |  |
|  | As a Merchant I want to be able to delete customer reviews and ban customer from my store. |
|  | As a Merchant I would like to be able to view customer’s order history. |
|  | As a Merchant I would like to be able to search customers using different filters. |
|  |  |
|  | As a Merchant I would like to be able to update order statuses. |
|  | As a Merchant I would like to be able to search orders of different customers based on different filters. |
|  | As a Merchant I would like to be able to view order timeline. |
|  |  |
|  | As a Merchant/Customer I would like to be able to create account and sign up. |
|  | As a Merchant/Customer/Admin I would like to be able to change my password. |
|  |  |
|  | As a Customer I would be able to sign in and sign out. |
|  | As a Customer I would be able to manage/view/update my profile. |
|  | As a Customer I would be able to purchase products. |
|  | As a Customer I would be able to view my order history. |
|  | As a Customer I would be able to view a catalogue displaying featured products, categories and sub-categories and enlisted products of the same categories. |
|  | As a Customer I would be able to navigate to the products description page and through other paginated web pages (different page numbers) |
|  | As a Customer I would be able to see product description page with details of the product after selecting a product. |
|  | As a Customer I would be able to see zoomed images of products after clicking on them. |
|  | As a Customer I would be able to add multiple desired products and also delete them from the shopping cart. |
|  | As a Customer I would be able to see the price details and proceed to checkout from the shopping cart. |
|  | As a registered customer I would be able to see my shopping cart items after I sign back in. |
|  | As a registered customer, I would be able to see my address details, and as a guest customer I can add my address at the time of checkout. |
|  | As a customer I can pay for the product by cash on delivery after the checkout process is complete. |

# Non-functional Requirements / Quality Attributes

<Requirements must be testable>

|  |  |
| --- | --- |
| **Sr#** | **Requirements** |
| 1 | The system should not utilize more than 1 GB of memory at any time during its execution.  <Do NOT write “*The system should utilize minimal memory*”> |
| 2 | The system should not fail more than 3 times every 24 hours. In case of a failure, the system should restore to normal operations within 5 minutes of a failure.  <Do NOT write “*The system should not fail often*”> |
| 3 | The transactions will take less time, for example in the worst case, the time for a  transaction will not take more than 10 seconds, otherwise it will take less than 3  seconds.  [Rephrase this requirement.] |
| 4 | Maximum error rate in which an error might occur during a transaction will be low and on average not more than 1 error every 500 requests. |
| 5 | Initially we plan on supporting 50,000 users and will scale with time. |
| 6 | Throughput (transactions at a time) will be 200 users concurrently and the software will process 1500 requests on average in one day. |
| 7 | Scrolling on page will take at most 1 second. |
| 8 | To secure user accounts on our website, a password-based login setup would be  implemented. |
| 9 | Users can change password in case they forget it through an email sent to their registered email address. |
| 10 | Personal information of the users would be protected using sufficient security protocols.[Which security protocols do you have in mind and how would those protocols ensure security?] Passwords of users will be encrypted before storing in the database. |
| 11 | Users’ session will expire after 30 minutes of inactivity. Any task which requires future dependent information shall be cancelled. They will have to login again after timeout. |
| 12 | In terms of usability, our interface will be user-friendly and easy to learn.  There will be a step-by-step registration process.  The icons used will be the ones most commonly used in some of the popular market places such as Daraz, Shopify, Alibaba.  Products display will be similar to Daraz.  Paginated web pages will be used. |
| 13 | In terms of portability, the system shall conform to HTML standards and therefore support different web browsers including, but not limited to Internet Explorer, Firefox, Chrome, Opera and Safari. |
| 14 | The system will run on Windows server. |
| 15 | The uptime of the system will be at least 90%. |
| 16 | The website should support file/image uploads of up to 100 MB in size for a single seller for a particular product. |
| 17 | All functionalities will be supported by both touch and keyboard/mouse input methods. |
| 18 | The system should be hosted on a web service that can support a twofold increase in user interaction each year for the next five years without degradation in performance. [Mention number of users here and how those numbers will change in the next five years.] |
| 19 | The hosting service must also support a twofold increase in the database volume each year for the next five years. [What are your database requirements at the start? ] |

Add requirements for authorization as well. For instance, each user must have some access rights and the system should not allow violation of these access rights. Access rights may be granted or revoked as needed.

# Who Did What?

|  |  |
| --- | --- |
| **Name of the Team Member** | **Tasks done** |
| Abdur Rehman Masood | Customer functional requirements, non-functional requirements, quality attributes and GitHub Submission. |
| Daniyal Mumtaz | Customer functional requirements, non-functional requirement, quality attributes and GitHub submission. |
| Muhammad Muzammil Khan | System Actors, Functional Requirements of Admin and Merchant |
| Waliullah Aitemad | Introduction, System Actors, Functional Requirements of Admin and Merchant |
| Waqar Ul Haq Khatana | Merchant functional requirements, non-functional requirements and Quality Attributes. |

# Review checklist

Before submission of this deliverable, the team must perform an internal review. Each team member will review one or more sections of the deliverable.

|  |  |
| --- | --- |
| **Section** **Title** | **Reviewer Name(s)** |
| Introduction | Abdur Rehman Masood, Daniyal Mumtaz, Muzammil Khan, Waliullah Aitemad, Waqar ul Haq Khatana |
| Actors | Abdur Rehman Masood, Daniyal Mumtaz, Muzammil Khan, Waliullah Aitemad, Waqar ul Haq Khatana |
| Functional Requirements | Abdur Rehman Masood, Daniyal Mumtaz, Muzammil Khan, Waliullah Aitemad, Waqar ul Haq Khatana |
| Non-functional requirements | Abdur Rehman Masood, Daniyal Mumtaz, Muzammil Khan, Waliullah Aitemad, Waqar ul Haq Khatana |