

*Software requirement specification for online gaming i.e. miniclip*

# **Software Requirement Specification For *Online Gaming***

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# 1.Introduction

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Miniclip was founded in 2001 by Rob Small, a young games enthusiast fresh from university with a dream to build the next generation game entertainment company, and Tihan Presbie, an entrepreneur in computerized financial trading.

Miniclip games have a truly global audience, with users accessing from over 195 countries. Now operating in 17 languages, Miniclip continues to evolve and focus on creating the best possible user experience.

Miniclip has seen dramatic growth since its inception in terms of both unique users and revenue, and has been consistently profitable. Miniclip had been experimenting in mobile games for some time and was early adopter to the mobile gaming trend that disrupted the online game history. It is the world's largest privately owned online gaming website. Miniclip also has many mobile games that are available for iOS , Android and Windows Phone such as 8 Ball Pool, Gravity Guy , Archery King, Soccer Star. In Dec 2016 , Miniclip crossed 1 billion downloads across its mobile games on iOS , Android and windows devices , with more than 350 million downloads in the past 12 months.

## 1.1 Purpose

This document describes the software requirement specification for a gaming website.

## **1.2 Document Conventions**

*Software Requirement Specification For Online Gaming i.e. Miniclip 2*

Describe any standards or typographical conventions that were followed when writing this SRS, such as fonts or highlighting that have special significance. For example, state whether priorities for higher-level requirements are assumed to be inherited by detailed requirements, or whether every requirement statement is to have its own priority.

Font: Times New Roman 14

## **1.3 Project Scope**

The website gives the complete access to the games depending on their class type and will allow them to all multiplayer as well as single player game falling in their class category. In multiplayer mode, the opponent will be selected randomly and it will require a good internet connection to play such games.

The gamers may purchase many games to play in offline mode and also, they can go for free offline games which won't need to be purchased.

The website will send a gamers card to the user after verifying all his personal details and payment details. The company allows you to see the profile of other gamers, make teams, join tournaments, see gaming videos, put reviews etc. The

achievements of the gamers must be properly recorded so that gamers must not require to play a big game again from the beginning.

## 1.4. Intended Audience and Reading Suggestions

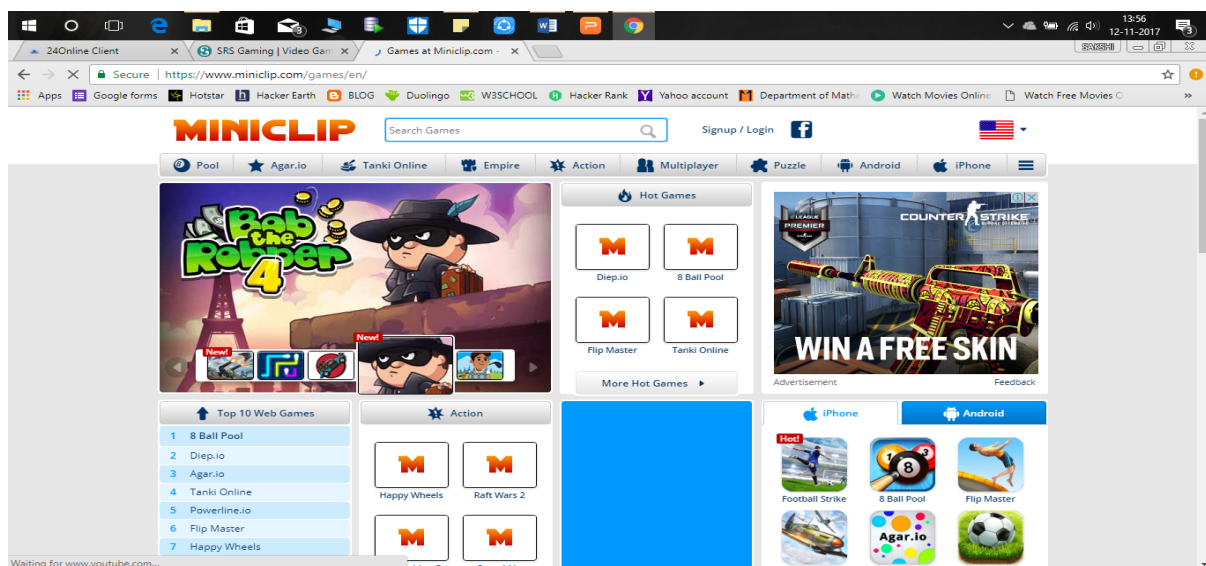
The document is intended for all the customers and the developers (Designers, Tester, Maintainers).

The main audience is assumed to have the basic knowledge of accessing a website, surfing and knowledge about the controls of games available online.

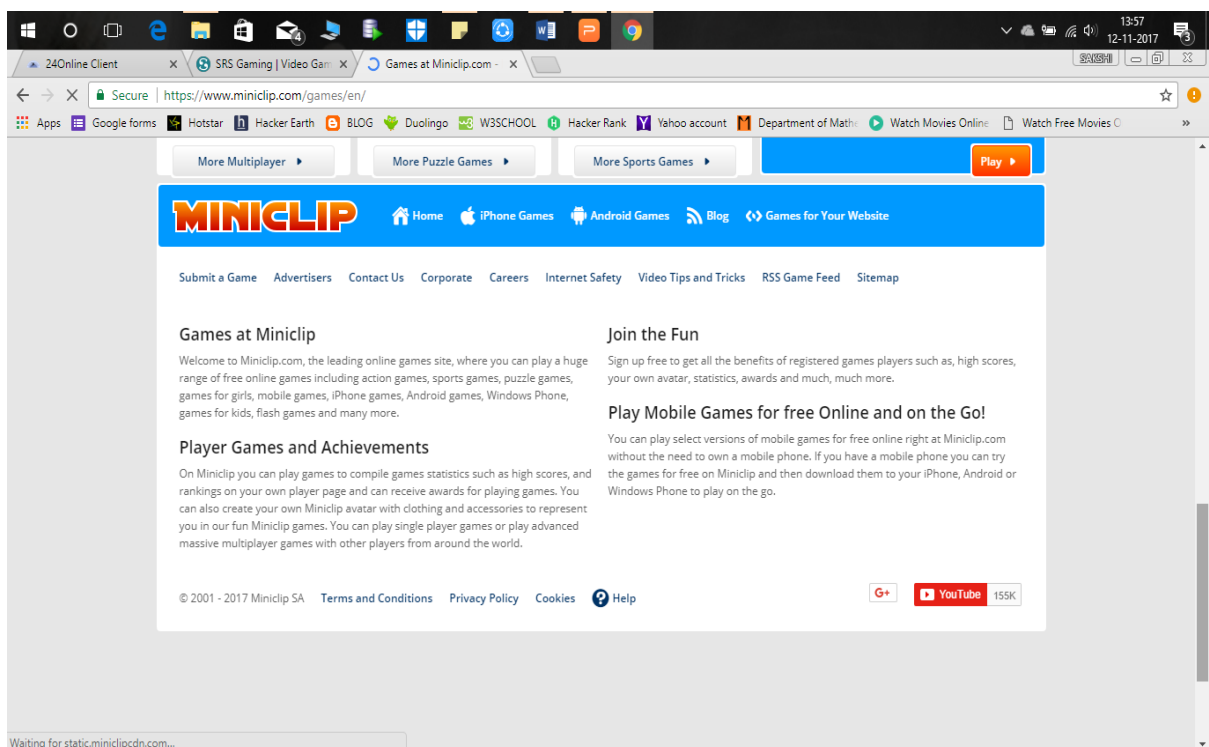
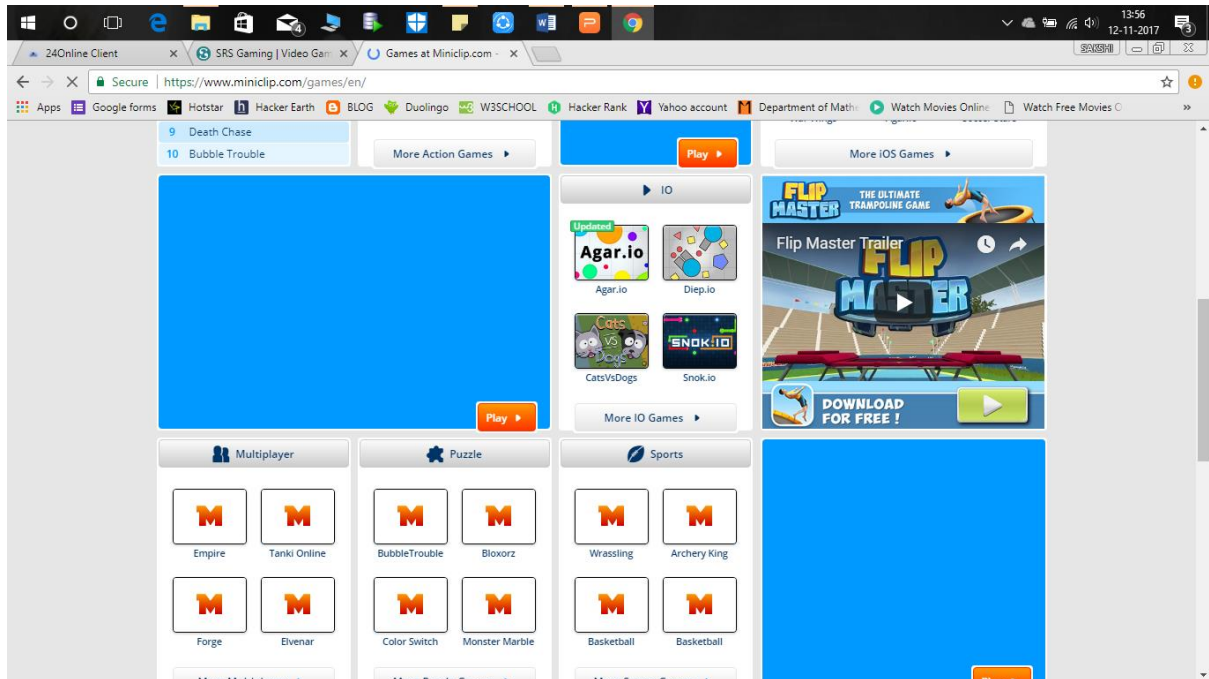
Knowledge and understanding of the UML diagram is also required.

## 2. Snapshots

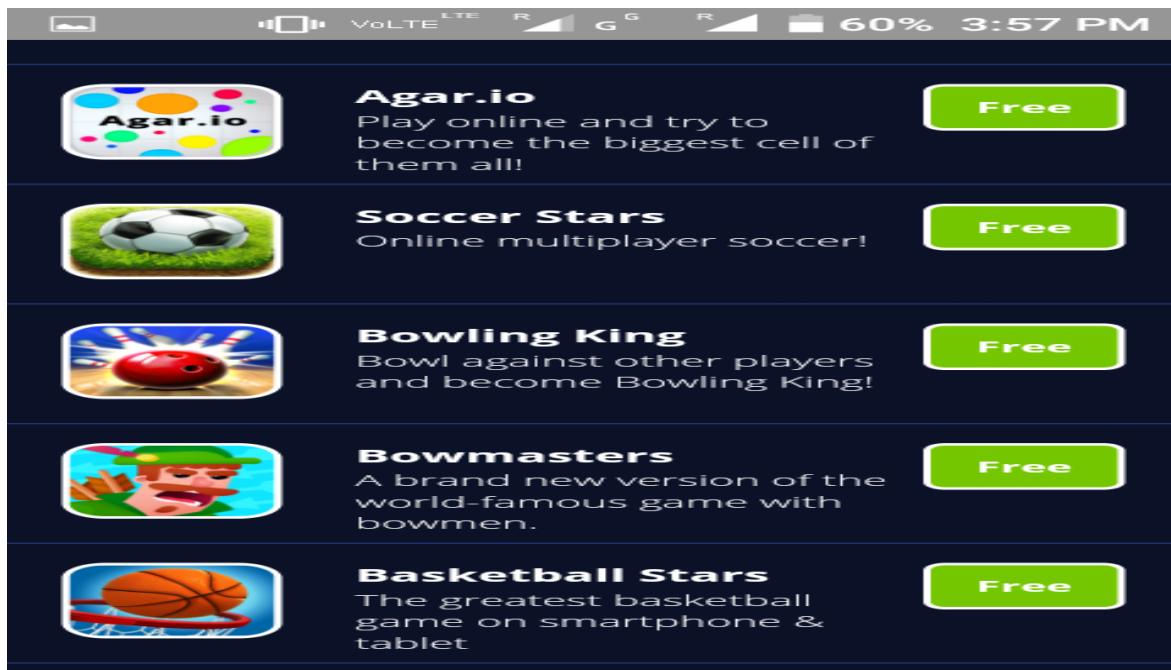
### 1. Desktop View



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## 2. Snapshots of App





### **3. References**

<http://www.miniclip.com>

<http://www.gamerspot.com>

<http://www.w3schools.com>

<http://www.codeproject.com>

### **4. Definitions, abbreviations, and acronyms.**

- **Account**

A single account must be created on a website by joining through which gamers profile is maintained. Accounts may be of various types with at least Bronze class type user. A customer cannot hold more than one account with similar email-id/personal details.

- **Class Type**

Class type is a category of gamer such as bronze with lower access followed by silver, gold and platinum. Class type will be decided with the type of gamers card purchased by the gamer.

- **Gamers Card**

Gamers card will be of four categories Gold, Silver, Bronze and Platinum. The gamers card will decide the access to the



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the number of games. The bronze card user will have access to least number of games whereas the platinum will have the maximum.

- **Payment**

The payment option is to purchase games and to buy higher version of gamers card.

- **Gamers/Customer**

The gamers are those who will login into the website by putting their bank details and joining through their **Facebook ID's** or **email-ID's**.

- **Profile**

A short article giving description of a person.

## **5. Overall Description**

### **5.1 Product Perspective**

The gaming network does not work independently. It works together with the multiple computers through a channel connected over a wide area network and the website is run by the server maintained locally in the company.





## **Specific Requirements**

### **6. Functional Requirements**

#### **6.1 Functional Requirement 1**

- Set variable such as name, email-id, address, Date of Birth, Phone number and Card details.
- Inputs
- Check all inputs are correct or not.
- Check whether any mandatory input is not left blank.
- Process
- Save data

#### **6.2 Functional Requirement 2**

- Set the default payment modes.
- Ask to insert card type such as master or visa if credit card selected.
- Ask for credit card details such as number, expiry and pin.
- Ask to insert debit card number and pin/cvv if debit card selected.



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- Move to payment gateway option if net banking is selected.

### 6.3 Functional Requirement 3

- Make a default gamers profile.
- Update gamers profile as per the achievement of the gamer/user.

### 6.4 Functional Requirement 4

- Sanction a gamer card assigning a random password and number.
- The card number must not match with any other card making it unique.
- If match check for another
- Set expiry date as per the membership of the user.
- Update expiry date if user asks to update it and ask for payment.

### 6.5 Functional Requirement 5

- The website must contain videos, games, multiplayer mode, help like options.
- The gaming videos must be there in the videos section
- The multiplayer mode must give access to multiplayer games.



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- Help option must solve the help in solving the query of the user.

## **7. Non-Functional Requirements**

### **7.1 User Interface**

The user interface should be intuitive, such that 99.9% of all new web users are able to complete their website registration without any assistance can access to games with least assistance required.

### **7.2 Hardware Interface**

The hardware should have following specifications:

- Ability to read the profile of the gamer
- Ability to access all the games falling in the respective class of the gamer.
- Assistance given wherever needed
- Continuous power supply
- Ability to connect to website at the mentioned internet speed.



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- Ability to access multiplayer mode
- Ability to validate user and allow user to add friends
- Once login user must not be required to ask to re-login to the same system at the same time.

### 7.3 Software Interface

No additional software is required to access the website. You just need network access softwares to access to internet and get into the network.

## **8. Other Non-Functional Requirements**

### **8.1 Performance Requirements**

- It must be able to perform in adverse conditions like high/low temperature etc.
- Uninterrupted connections
- High data transfer rate.

### **8.2 Safety Requirements**

- Must be safe enough to avoid any data loss
- Must not leak the card details of any user.
- There must be an auto checker assigned to check any unidentified action of the user
- Secured enough to stop hacking at maximum instances



- The personal details of the user must not leak if user wants to keep it personal
- No leakage of confidential data from the website
- Bug tracking must be there

### **8.3 Security Requirements**

- User accessibility is censured in all the ways
- Users are advised to change their password on first use
- Users are advised to not to tell their password to anyone
- The maximum number of attempts to enter password will be five

[After that accounts will be temporarily locked]

### **8.4 Software Quality Attributes**

#### **8.4.1 Availability**

The website has to be accessible 24 hours a day

#### **8.4.2 Security**

The website should provide maximal security. In order to make that much more transparent there are the following requirements:



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1. It must be impossible to plug into the network.

### **8.4.2 Maintainability**

Only maintainers are allowed to connect the website for maintenance.

### **Other Requirements**

Database

All the database of particular must be kept in different databases and they all must be updated with every action done the user on the website.

### **Product Perspective**

The gaming network does not work independently. It works together with the multiple computers through a channel connected over a wide area network and the website is run by the server maintained locally in a company.

### **Communication Interface**

The gamers communicate over world wide web through the internet connections.

## **Software Interface**

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The message sent via the communication network are specific to the target gamer system. At present, ten known gamers will access the game website and participate in the gaming network.

## **Hardware Interface**

The software will run on all type of system having high quality of graphic card and having good speed of internet connections.

## **User interface**

### **Gamers/Target Customer**

The customer user interface should be intuitive, such that 99.9% of all new users are able to complete their registrations and enhance their gaming experience without much assistance.

### **Game Designer**

There must not be any difficulty in uploading the new games with same interface and requirements by the game designers.

### **Maintainer**

The maintainer is responsible for adding new features to the website and maintaining all the records of all the gamers as well as adding new features into games. A maintainer should be able to add some new features to the website as well as games available on the website within quick succession of time.



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The website should work 24\*7. The website identifies a customer by a gamers card number and password. It collects information about a simple profile maintained with the details provided by the gamer himself during joining process, this profile helps the gamer to communicate with the website as well as other gamers during an amazing gaming experience, and allow to play games to the gamers. The website provides their own games to the gamers. The website requires appropriate record keeping and security provisions. The website must handle concurrent accesses to the same user correctly.

### **9. Design and Implementation Constraints**

- Login

#### **Validate Gamers Card**

- Validate for Card Expiration Date
- Validate that the card's expiration date is later than today's date



- If card is expired, prompt error message “ Card is expired”

#### **Validate for Card Upgrade**

- Ask for the details of the previous card.
- Ask for payment
- Update user profile
- Upgrade the card

#### **Validate for Disabled Card**

- Validate that the card is not enabled
- If card is disabled, prompt error message,” Card has been disabled as of <expiration date>.

#### **Validate for Locked Account**

- Validate that account which is locked.
- If it is locked, prompt error message “Account is locked.”

#### **Validate Password**

- Validate that the password is not blank.
- If password is blank, prompt error message” Please provide correct information.”
- Validate that the password entered matches the password on file
- If password does not match, prompt error message “Password is incorrect.”



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### **Blocking Account**

- If user is found to access the any kind of private data or misleading the data by hacking into the server.
- Permanent block address of the user and also block the profile of the user.

### **9.1 User Characteristics**

This gaming website is targeted to all aged users above 13 years. As this is the age group knowing how to interact with the systems and also they love gaming. The gamers are always in the search of some interacted gaming websites so they will be our main target.

### **9.2 Assumptions and Dependencies**

- Hardware never fails.
- Internet speed is always good.
- Limited number of users at a time.
- Limited number of games played in a single moment of time.

### **9.3 Other Requirements**

#### **9.3.1 Data Base**

The website must be able to use several data formats according to the data formats that are provided by the data bases of different users.

### ❖ Database

A database is collection of related data, which can be of any size and complexity. By using the concept of Database, we can easily store and retrieve the data. The major purpose of a database is to provide the information, which utilizes it with the information's that the system needs according to its own requirements.

### ❖ Database Design:

Database design is done before building it to meet needs of end-users within a given information-system that the database is intended to support.

### User\_info:

Field	Type	Null
user_id	Varchar(35)	Yes
password	Varchar(35)	Yes
First_name	Varchar(20)	Yes
Middle_name	Varchar(20)	Yes
email	Varchar(30)	Yes

## 10. Use Case Diagram (UML):

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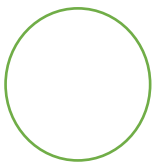
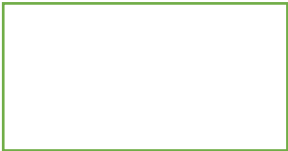
Use case diagrams are usually referred to as behaviour diagrams used to describe a set of actions (use case) that some system or systems should or can perform in collaboration with one or more external users of the systems (actors). Each use case should provide some observable result to the actors or other stakeholders of the system.



## 11. DATA FLOW DIAGRAMS



### Data Flow Diagram:

The Data Flow Diagram are commonly used during problem Analysis. A DFD is very useful in understanding the system effectively. The DFD shows the flow of data through a system.

### Notations in the DFD:

Symbol	Description
	The circle or bubble represents a process. A process is named and each process is represented by a named circle.
	The source or sink is represented as a rectangular box. The source or sink is the net originator or the consumer of the data that flows in the system.

	The arrow represents the flow of data through the system. The labelled arrow enter or leave the bubbles.
	The database is represented with the open box symbol

	The OR relationship between data flow is represented by + between data flow.
	The need for multiple data flows i.e. AND relationship by a process is represented by * between data flows.

## 12. TEST-CASES

A test case is a set of conditions or variables under which a tester will determine whether a system under test satisfies requirements or works correctly. The process of developing

test cases can also help to find problems in the requirements or design of an application.

### Test case 1: login

s.no	Testing name	description	Expected result	Actual result	remarks	output
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1	login	Fill all details	Login successfully	Login successfully	Login successfully because all details and fields are correct	passed
2	login	Some details are missing	Login successfully	Login failed	Failed because details are not correct	failed
3	login	Login with google and Facebook api authentication	Login successfully	Login successfully	Login successfully because api responding perfectly	passed

### Test case 2: signup

s.no	Testing name	description	Expected result	Actual result	remarks	output
------	--------------	-------------	-----------------	---------------	---------	--------

1.	Sign up	Fill all details	Signup successfully	Signup successfully	Signup successfully because all details and fields are correct	passed
2.	Sign up	Some details are missing	Sign up successfully	Signup failed	Failed because details are not correct	failed

3.	Sign up	Some details are missing	Signup successfully	Signup failed	Failed because details are not fill as per mandatory	failed
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### **Test case 3: add money/payment mode**

<b>s.no</b>	<b>Testing name</b>	<b>description</b>	<b>Expected result</b>	<b>Actual result</b>	<b>remarks</b>	<b>output</b>
1.	Payment	Filled details are correct	Added money & payment successfully done	Payment done successfully	With best network and correct bank details server respond quick and	Passed

					payment done	
2.	Payment	Filled details are not correct	Added money & payment successfully done	Payment done unsuccessfully	Bank failed to authenticate bank account	Failed
3.	Payment	Filled details are correct	Added money & payment done successfully	Payment done unsuccessfully	Bank server not responding when high traffic	Failed

#### Test case 4: Gamers Profile Update

s.no	Testing name	description	Expected result	Actual result	Output

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1.	Gamers profile update	Details entered to update the profile are correct	Profile updated successfully	Profile updated	Filled details to update are correct	passed
2.	Gamers profile update	Some details are missing	Profile update successfully	Unsuccessful result	Filled details are not correct	failed



### Test case: 5 Assigning card to the gamer

s.no	Testing name	description	Expected result	Actual result	remarks	output
1.	Assigning card to the gamer with random password	Details are correct & card is assigned to the gamer	Card is assigned to the gamer	Card is assigned	Card assigned because details are correct	passed
2.	Assigning card to the gamer	Some details are missing or password matched	Card is assigned to the gamer	Card is not assigned	Card is not assigned because password matched with some other gamer	failed
3.	Assigning card to the gamer	Details are correct but password matched so assigning different password	Card assigned to the gamer	Card assigned to the gamer	Card is assigned because assigning different password not the matching	passed

					password	
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### 13. Appendix A: Glossary

**Payment:** the action or process of paying someone or something, or of being paid.

**Transaction:** An instance of buying or selling something; a business deal.

**User:** A person who uses or operates something, especially a computer or other machine.

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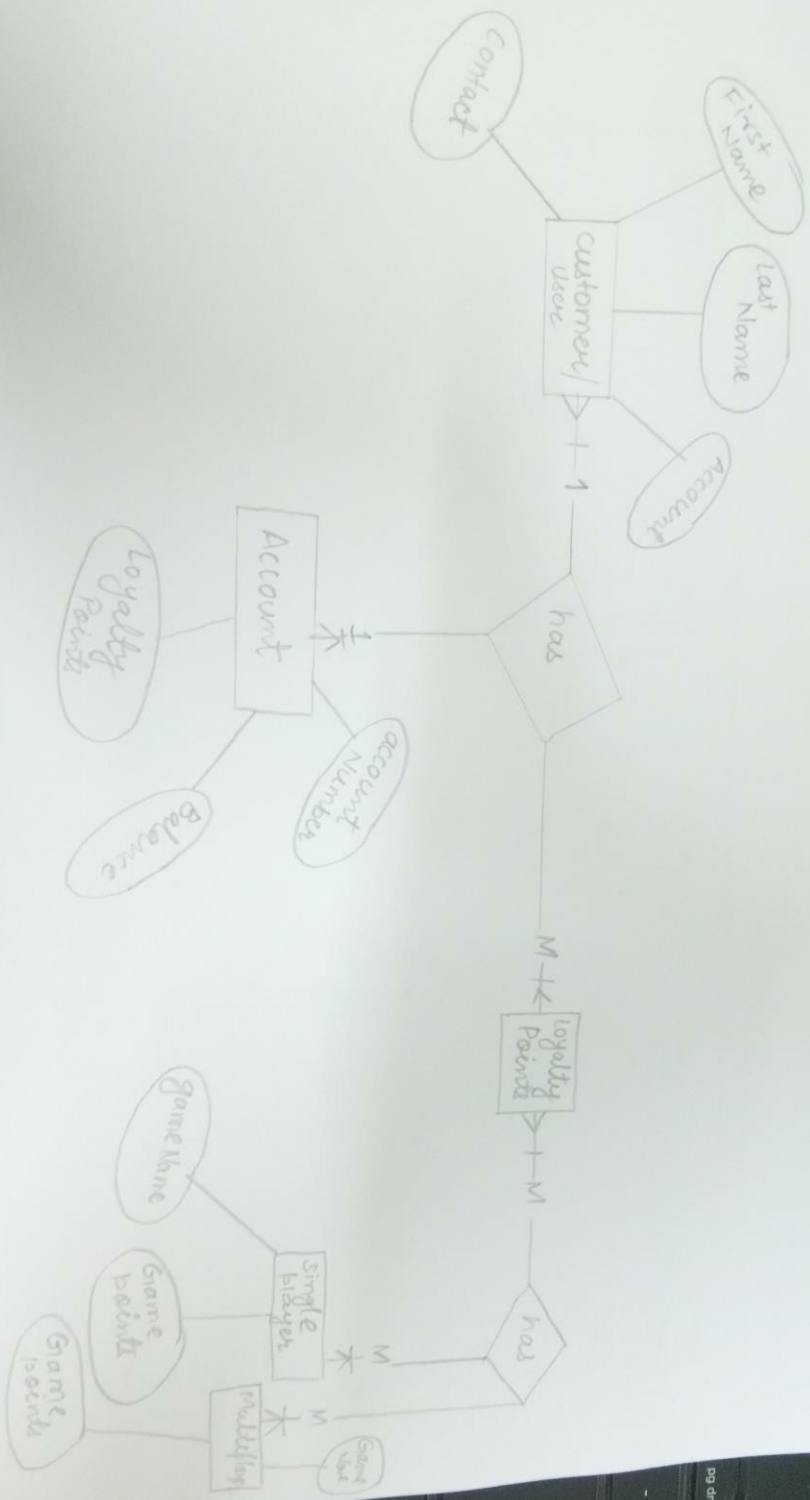
### 14. Conclusion

It is the development team's hope that this document will be the first part of a continuing series of interchanges between themselves and customers. This will ensure that customer's need are met in a free and timely fashion. It will be important to involve potential voters on this feedback process, as end users such as they often have many unique insights that might not occur to software developers or person involved in management. This interexchange will involve both information such as this document and prototype of the product. The end result will be a product that is functional, reliable, secure and easy to learn and use.

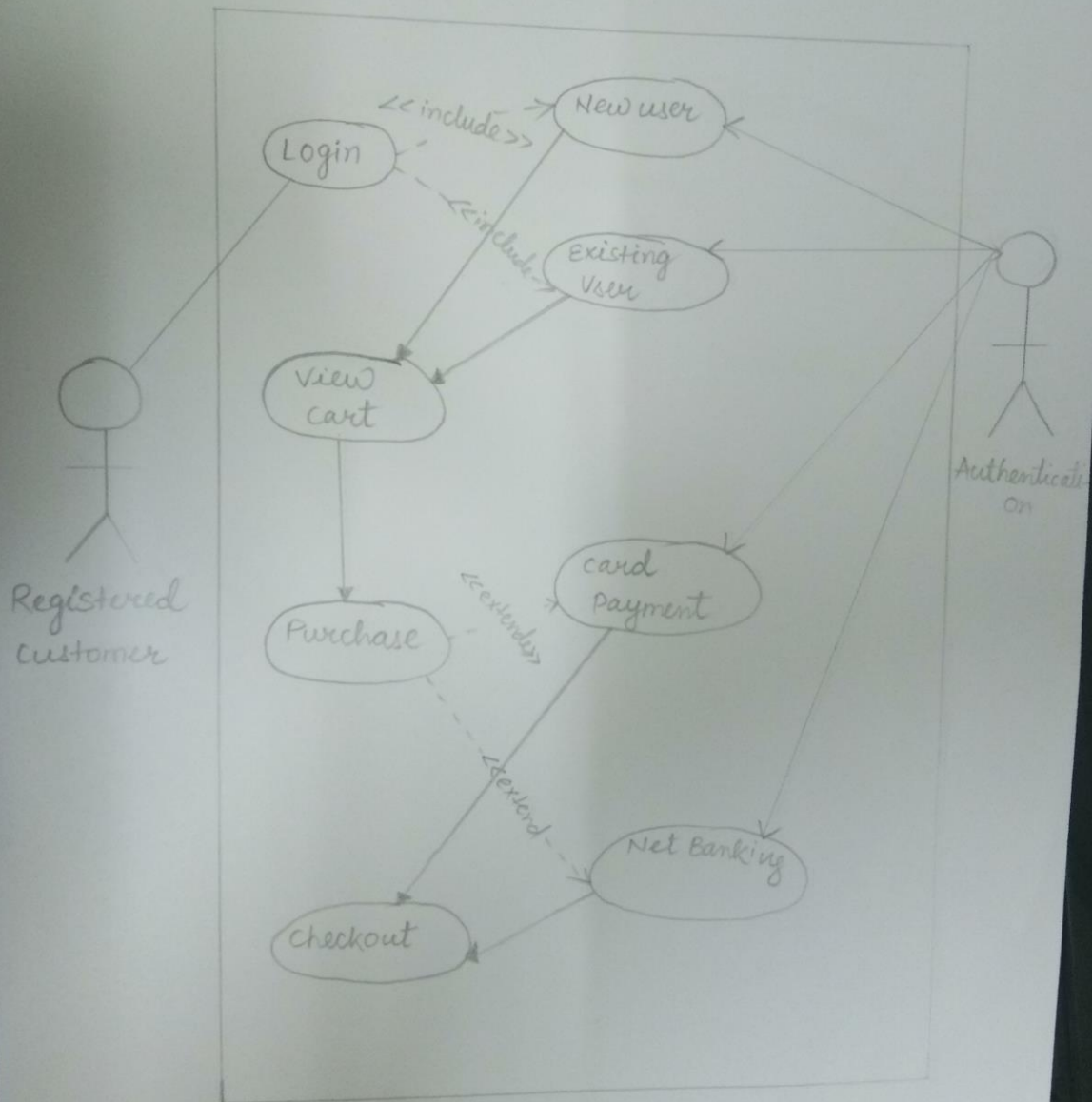
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# ER DIAGRAM

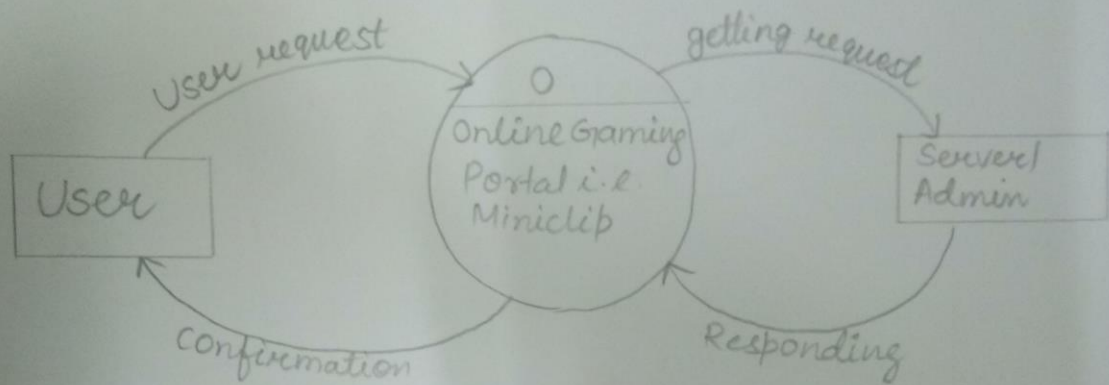


# USE CASE DIAGRAM



# DATA FLOW DIAGRAM

## ZERO LEVEL



# FIRST LEVEL

## LEVEL 1

