

**School of Computer Science**  
Faculty of Engineering & IT

**ASSIGNMENT/PROJECT COVERSHEET - GROUP ASSESSMENT**

**Unit of Study:** ISYS2110 Analysis and Design of Web Information System

**Assignment name:** Assignment 2

**Tutorial Time:** Monday 12pm

**Tutor name:** Mayank Shekhar

**DECLARATION**

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Project team members				
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ISYS2110 Assignment 2

## **Video Game Web Rental System**

# 1. Introduction, Background, and Motivation

Gamifi is an innovative video game provider that offers video games to consumers via a rental service. Gamifi's business model is based around providing video games for cheaper than purchase price by renting them out for periods of time to members. Suppliers are mostly video game publishers which supply the copies of the game. Competitors in this market include digital video game marketplaces, physical stores that sell video games and other video game rental services. Customers targeted are video game enthusiasts who play a large amount of games but do not have the finances to purchase new releases.

The company currently operates via physical stores where members can loan and return video games. Each store is run by a manager with clerks handling the day to day tasks. Regular customers may be eligible for rewards based on their membership tier.

Gamifi is looking to expand their business to online by implementing a web-system that allows for online rentals, reservation and data management by staff. This is an innovative step forward for Gamifi and it expands their market reach to consumers that prefer the convenience and simplicity of online systems. Furthermore it will save time for both staff and consumers as data such as stock level and existing loans can be checked rapidly. The web-system is the foundations of this expansion and hence Gamifi has hired the team to design this system for them.

## 2. Project Details

### 2.1. Project Objectives

The primary objective of this project is to analyse and design a new web-based system for Gamifi that will expand their video game rental services online which ultimately provides convenience to its customers and staff increasing productivity, efficiency and market reach. The scope of this project is limited to the below objectives and is to be delivered in 5 months on a budget of \$250,000.

The objectives of the web-based system are:

- To maintain information about each individual video game copy including title, game publisher, game rating, copy number, edition, publication year, serial number, rental status and due date.
- To maintain information about Gamifi's members such as name, address, telephone numbers, membership tier and if necessary additional information for specific membership tiers.
- To provide a search directory for members to search for video games, and if all copies are checked out, to allow for members to place reservations.
- To provide a function to generate reports based on video game categories.
- To allow staff to manage the database of video games including deleting and adding game copies, renting and checking in video games, and to access reservations by members.

Additional objectives may include tactical plans to train staff in the usage and maintenance of the web system, to include IT support for the web system, customer support for members using the web system and an advertising campaign to introduce members to the services the web system offers.

Critical success factors that must be achieved in order to fulfill the primary objective are creating a ergonomic and intuitive design that provides all necessary functions for the management and operation of the online video game rental.

## 2.2. Requirements Gathering

- **Functional Requirements**

- Users can search database for games by title, publisher and rating. The database returns an ordered list which can be sorted in ascending, descending and alphabetical order.
- Users can rent out available games in the database, which changes the rental status and due date of that copy of the game. This also creates a game loan object with the appropriate details and associates it with the member profile.
- Users can reserve video games which creates a reservation object with title, member, date reserved, priority and date fulfilled. When reservations are fulfilled a game loan is created and associated with the member.
- Staff can manually create or remove loan objects and associate it with members if members visit the physical store to take out a loan or return games and keep track of stock levels.
- Managers can update the database if new games are added or if games are damaged and have to be removed.
- Managers can use the database to display a variety of reports such as video game titles by genre, all video games that are currently loaned out, all video games that are overdue, or all video games that are reserved.

- **Functional Requirements (Assumptions)**

- Users can access their own profiles and change information including name, address, payment details and telephone number. This should also display game loans associated with the user.
- Users can access a history of past rentals as well as past rental fees and view information on rental costs of new games.

- **Non-Functional Requirements**

- Usability Requirements
  - UI should be intuitive and ergonomic for users.
  - User functions should be organised logically and behave as expected.
  - All business functions should be supported by the system.
  - Common browsers, operating systems and devices should be supported.
- Reliability Requirements
  - System must be available at all times unless taken down for maintenance.
  - Maintenance periods should not exceed 6 consecutive hours.
  - Database capacity should be large enough to support potential new data at any point. If this is not true, database capacity must be increased as soon as possible.
  - Errors within the system should be flagged and resolved as soon as feasible.
  - Customer and technical support teams should be online during business hours.
  - System updates should not significantly alter the client side perspective.
- Performance Requirements
  - System must be able to support average user counts per day at any given time for every function including processing payments.
  - Response times from the system should not exceed 4 seconds for queries.

- Response times for basic functions such as changing details should be less than 1 second.
- Security Requirements
  - A physical backup of the database should be stored off location in the case that the main database is compromised.
  - Backups of the database should occur at regular intervals such as every thirty minutes in order to minimise loss of data if database is compromised.
  - Users must be authenticated in order to use the system and can only access functions that are within the scope of its authority.
  - Appropriate countermeasures such as firewalls and antivirus must be active to prevent malicious attacks within the system.
  - Accounts should require a password reset via email after several incorrect login attempts.
  - System should provide an operations log which creates an audit trail of historical information in case of a security issue.
  - Information should be encrypted including user profiles, payment details and other sensitive data.
  - Error logs must be created detailing time and event in the case where an error occurs within the system.

## 2.3. Expected Benefit and Outcome

In terms of intangible benefits, working as a sustainable brand that can successfully integrate environmental and economic aspects into the project, it is more likely for Gamifi to build a more positive image than traditional video game stores. Aiming to offer various types of memberships will benefit in creating customer loyalty, and achieve customer turnover in a long run. By offering the concession membership, Gamifi is expected to attract a larger group of customers as most students may not have the money to afford buying a lot of video games. Providing customer service by having staff members in store is expected to reduce customer complaints, for issues are more likely to be handled right away. The reservation system shall assist staff members to promote video games to customers according to customers' personal preference. These are expected to deliver a higher quality service while improving customer experience, and therefore enhance customer loyalty and customer turnover. Further, the check-in-check-out feature provides better security for ensuring stock levels, such improves time-efficiency and productivity gain while significantly reducing the involvement of human errors. On the other hand, tangible benefits introduced by the system will include guaranteed increase in revenue and resource cost savings can be considerably reduced. All in all, user experiences will be greatly enhanced by the versatility and adaptability of this system, thus delivering both tangible and intangible benefits.

### 3. Market Research

Gamifi's plans to build a web system to facilitate video game rental from physical stores does cover a gap in the current market—however, it is based on a business model that has failed in recent years due to a decline in demand.

Currently, the only main competitor to Gamifi in Australia is GetGaming, which allows customers to rent video games online, then receive a physical disc copy of the game via mail. The customer also returns the disc via mail. They allow customers to rent games one-by-one or an unlimited number through a monthly subscription ("Rental Plans & Pricing", 2018). The main difference between GetGaming and Gamifi's future plans is that Gamifi would require customers to visit their physical stores to receive or return a copy of the game they rented.

Neither traditional brick-and-mortar video game stores in Australia like JB Hi-Fi and EB Games nor online marketplaces like Steam offer any rental services for video games. In fact, in 2017, EB Games trialled its "Swap 'n' Play" service in South Australia that allowed customers to rent pre-owned video games for a monthly subscription price (Orland, 2017). However, it did not have an attached web service, was limited to in-store transactions, and relied on pre-owned copies of games. The trial has since ended and did not expand beyond South Australia. While customers could return unwanted games as if they were renting, they would have to pay the full price of the game upfront.

Physical video game rental stores, which operated under a similar business model as Gamifi, did exist in Australia but have since collapsed ("Final credits roll on Morley Blockbuster", 2019). The largest of which were Blockbuster and VideoEzy, which allowed customers to rent video games by collecting and returning physical copies in-store, without an online storefront (Hastie, 2019). However, they mainly focused on renting movies and TV shows and likely had a small catalogue of video games, with the current VideoEzy website having zero mention of video games.

Rental software systems definitely exist on the market, however, they charge the businesses with a monthly price depending on the size of the project. For example, Booqable charges between 30 and 250 USD ("Pricing - Booqable Rental Software", 2019). EZRentOut, another rental software system, provides many features that would cover most

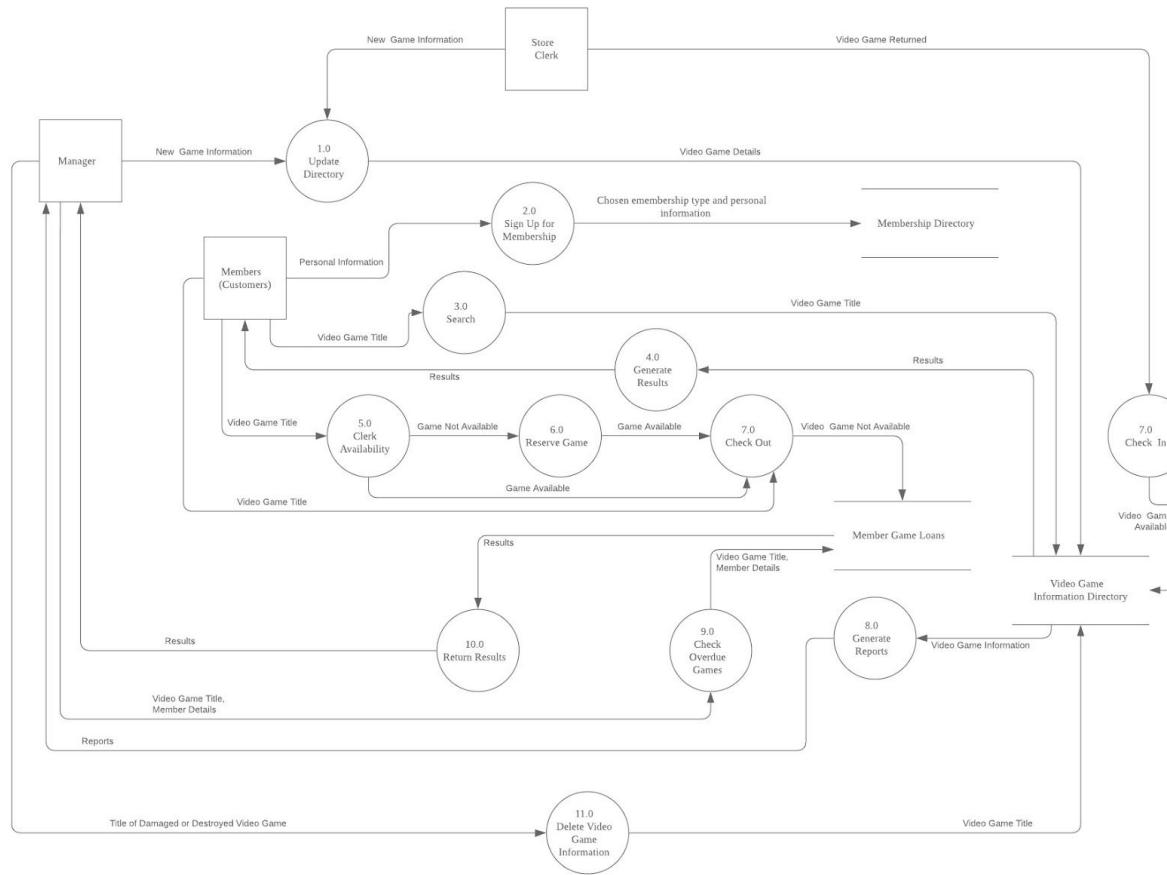
of the business functions—tracking information about each game and its individual copies, storing information about members, and tracking individual loans. It also offers an online storefront with support for multiple payment methods, reservations, and search. For the internal side, it allows for the creation of custom reports for managers and can handle support for multiple stores ("Features - EZRentOut", 2019).

What this software system may lack, however, is more granular customisation to support the business needs of Gamifi, which a bespoke system would provide, since it would be built with direct input from Gamifi itself. Additionally, a custom-made system would likely have less monthly costs compared to these commercial systems. EZRentOut, for example, only offers its online store feature on its most expensive plan, at 225 USD per month ("Pricing Plans for Rental Businesses - EZRentOut", 2019). Further, Gamifi would not have to rely on another company for its core business operations, which may be problematic for three reasons:

- The software company would have access to Gamifi's valuable user data, posing privacy and security risks.
- These software solutions are cloud-based ("About Us - EZRentOut", 2019) and an outage would prevent Gamifi from conducting critical business operations, causing significant loss.
- The software provider could shut down due to bankruptcy or change their product substantially, forcing Gamifi to find a new software solution.

## 4. System modelling

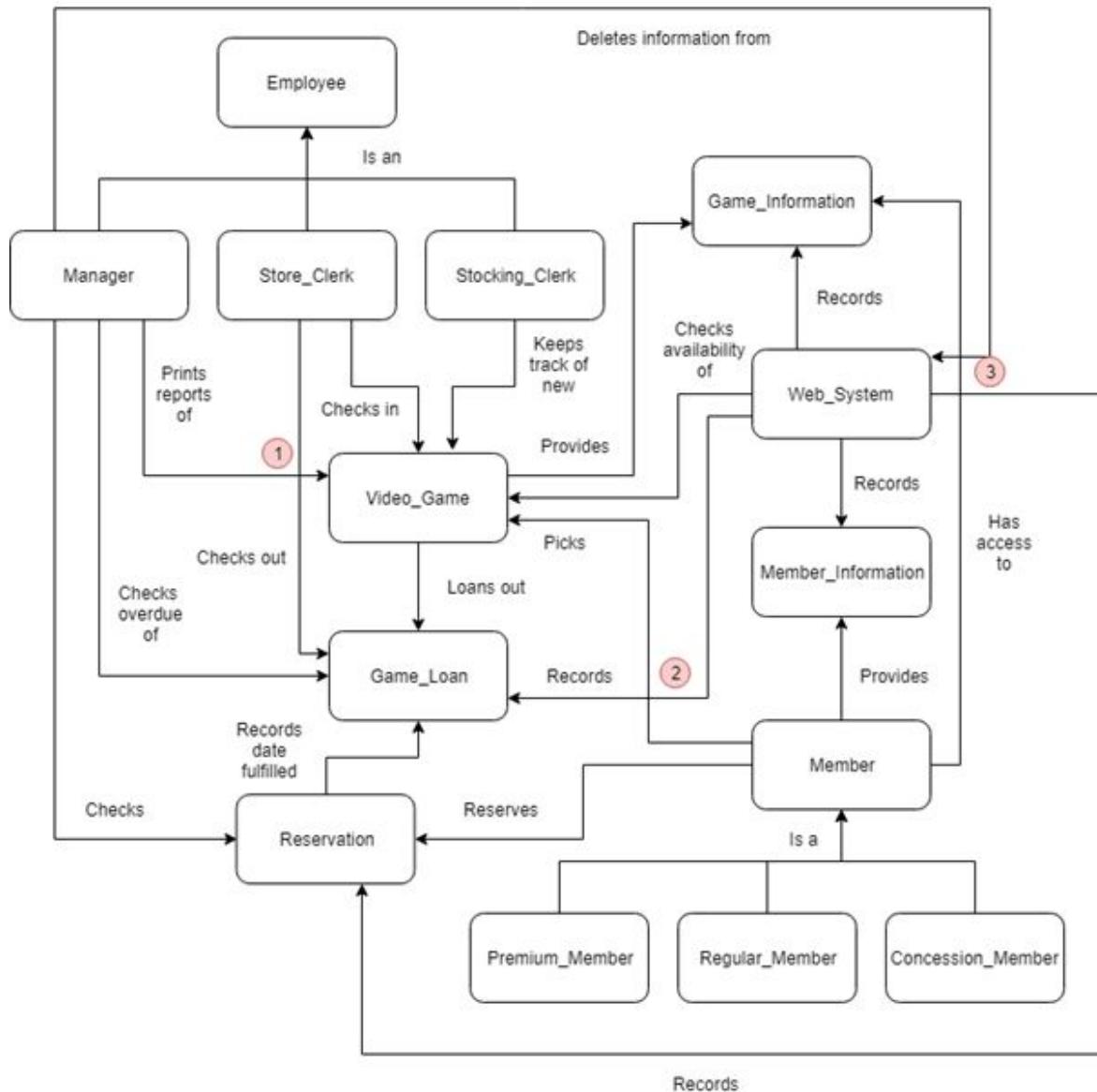
### 4.1. Data Flow Diagram (DFD)



**Figure 1.** The Data Flow Diagram demonstrates how information processes in the system in a graphical way. There are 3 external entities: store clerk, manager, and members; 3 data stores: Video Game Information Directory, Member Game Loans, and Membership Directory. A total of 11 processes are included in the graph to demonstrate what actions can be taken by external entities to store information into the system or get information from the system.

## 4.2. Object Relationship Diagram

Gamifi Video Game Rental Web-System Object Relationship Diagram



**Figure 2.** Objects and the interactions between them, which represents business features and affairs are shown in an object relationship diagram (Rabiul, 2019, P20). This diagram mainly displays three aspects of issues between objects, what the web system records, how a member orders a video game for loan, and how an employee manages video games. In order to avoid mistakes from crossline, the explanation for each crossline will be given.

1. A manager prints reports of a video game. A store clerk checks out a game loan.

2. The web system records a game loan. A member picks a video game.
3. A manager deletes information from web system. The web system records the reservation. A member has access to game information.

The diagram can give both client and team a clear version of the relationships between objects, which may improve the efficiency of system building and permission settings for different users.

### 4.3. Use Case Description

<b>Name of Use Case</b>	Gamifi Members' use of web system
<b>Actor</b>	Customers (members)
<b>Description</b>	Describes how the members can access the information directory
<b>Successful Completion</b>	<ol style="list-style-type: none"> <li>1. Member searches for video game titles and checks for the availability</li> <li>2. If all copies are checked out, member can reserve the title of the video game</li> </ol>
<b>Alternative</b>	<ol style="list-style-type: none"> <li>1. Member searches for video game titles and checks for the availability</li> <li>2. If there are copies available, member can check out the video game</li> <li>3. Video game will be checked out on a loan</li> </ol>
<b>Precondition</b>	Member requests for video game
<b>Postcondition</b>	Video game requested is checked out and member has already paid for the rental
<b>Assumptions</b>	Customers has registered as a member so that their membership are already stored in the system

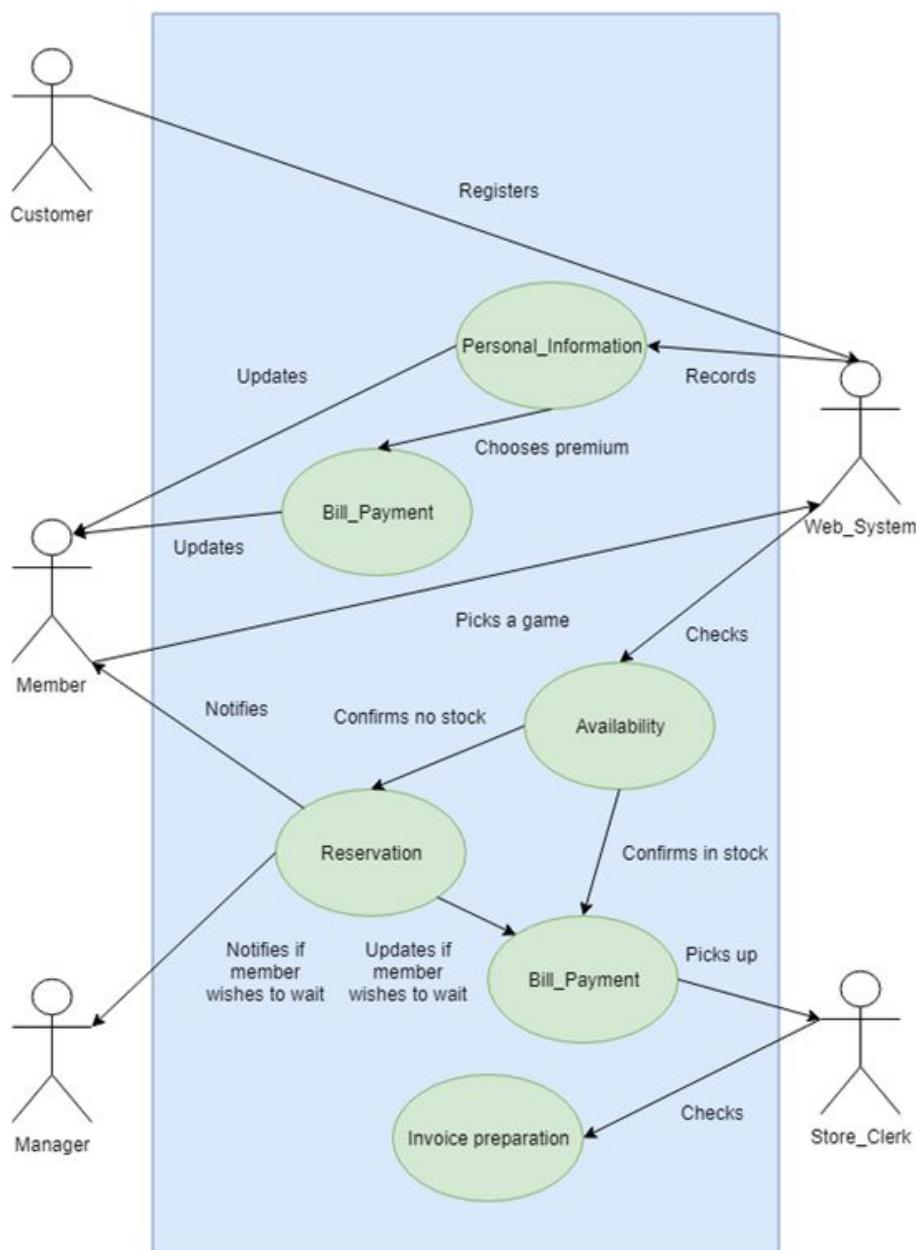
**Table 1.** The ‘Gamifi Members’ use of web system’ use case description records the process of the Gamifi members used to search and reserve or check out for a video game requested.

<b>Name of Use Case</b>	Use of web system by Gamifi staff members
<b>Actor</b>	Manager and clerks
<b>Description</b>	Describes the procedure and tasks that can be performed by the staff members on the web system
<b>Successful Completion</b>	<ol style="list-style-type: none"> <li>1. Store clerk enters detailed information of the video games</li> <li>2. Store clerk checks out and checks in video games on a loan for members</li> <li>3. Manager checks what video games are being put on reserve by members</li> <li>4. Manager prints reports of video game titles by category</li> <li>5. Manager checks the condition of video game copies that were rented out</li> <li>6. If video game copies are fine</li> <li>7. No further action needs to be taken</li> </ol>
<b>Alternative</b>	<ol style="list-style-type: none"> <li>1. Store clerk enters detailed information of the video games</li> <li>2. Store clerk checks out and checks in video games on a loan for members</li> <li>3. Manager checks what video games are being put on reserve by members</li> <li>4. Manager prints reports of video game titles by category</li> <li>5. Manager checks the condition of video game copies that were rented out</li> <li>6. If video game copies are damaged or destroyed</li> <li>7. Manager deletes information of the game copies from the web system</li> </ol>
<b>Precondition</b>	Video games copies that are in good condition are provided / Member requests for video game check in or check out
<b>Postcondition</b>	Video game copies information are up to date and quality control are taken
<b>Assumptions</b>	None

**Table 2.** The ‘Use of web system by Gamifi staff members’ use case description records the procedure the can be taken by staff members on the web system.

## 4.4. Use Case Diagram

Gamifi Video Game Rental Web-System Use Case Diagram

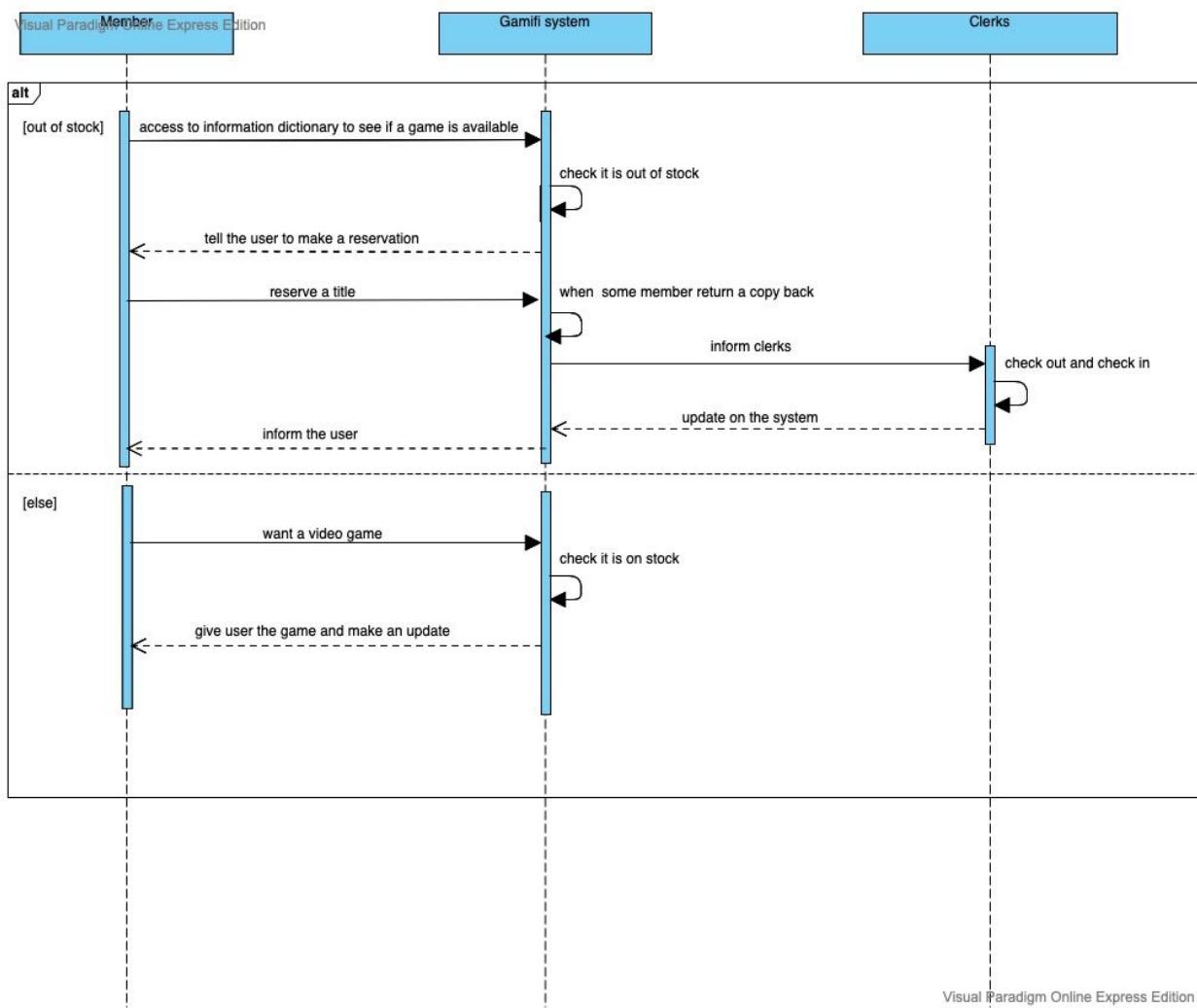


**Figure 3.** The use case diagram is the simplest representation of the user's interaction with the system, showing the relationship between the user and the use cases associated with him (Rabiul, 2019, P23). Through the use case diagram, people can know the different types of users and use cases of the system. There are particular 2 aspects of use cases, a customer first-time browses the website and registers as a member and a member wants to

loan a video game. The diagram clarifies whole transaction and interaction between actors. It is useful to introduce the process of 'Loan a video game' from new web-system to both clients and users.

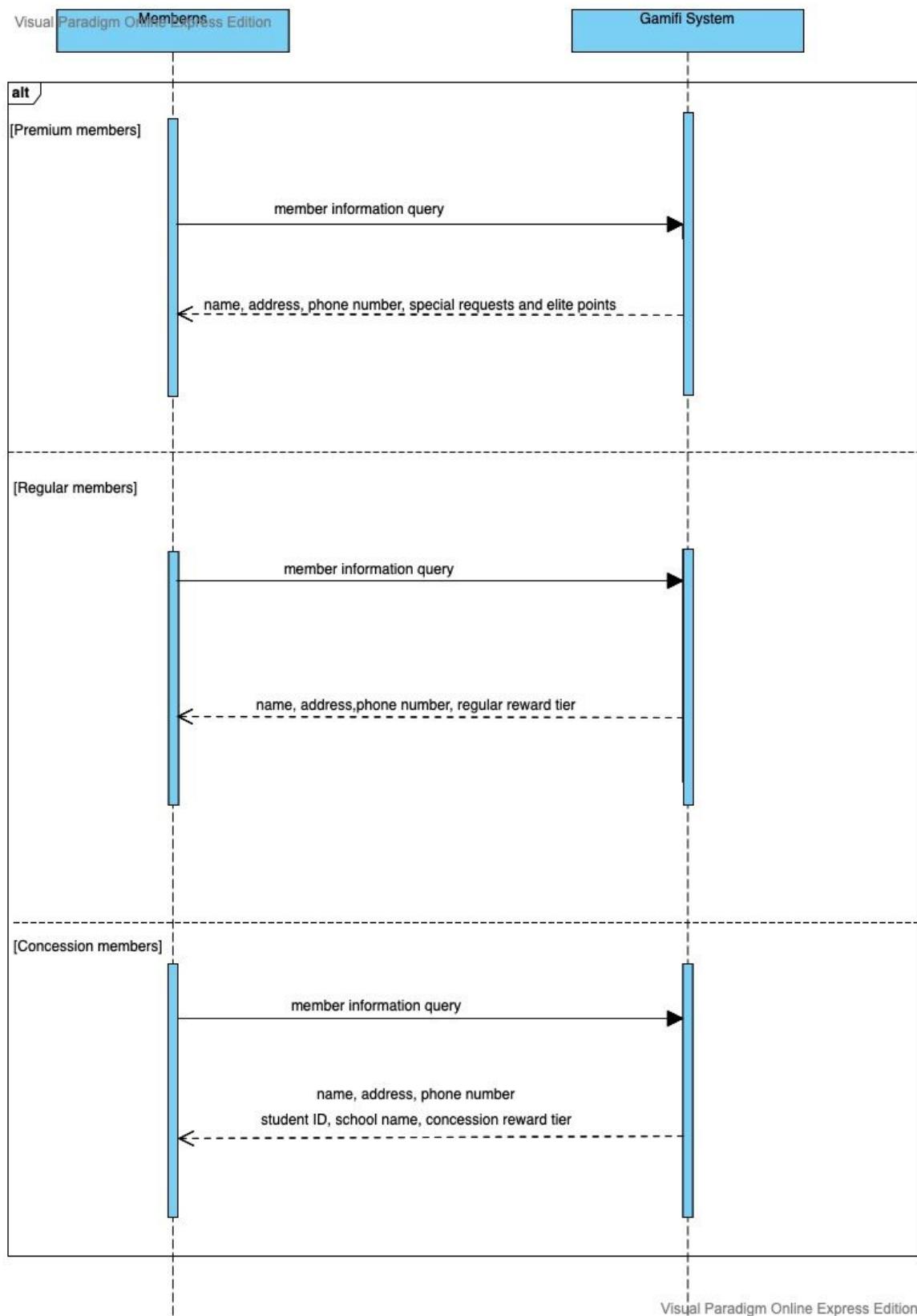
## 4.5. Sequence Diagram (SD)

### 1. The SD of a member renting a video game



The objects of this SD are members, the Gamifi system and Clerks. If the game which the member wants is out of stock, the system will check and tell the member to make a reservation. When other members return it back, clerks will check and do some upgrade on the system. Then the system can inform the member the game is on stock. If the game is on stock originally, the system will complete the request directly.

## 2. The SD of the information of members



The objects of this SD are members and the Gamifi system. There are three different privileges which are Premium members, Regular members and Concession members. This diagram shows the return messages of the system when these three privileges want to see their member information.

## 4.6. User Interface Design

### Interaction Design

The systems will be accessible via a web application for both members and staff, but will also be accessible via a local desktop application for staff inside stores. This prevents any potential unauthorised actions by members accessing staff accounts while in store as members will not be able to easily identify the web application they are familiar with. Processes performed from other devices will be sent to the main database over the internet.

Accessibility support is provided following web content accessibility guidelines provided by the W3C organisation [here](#) (Kirkpatrick et al., 2019) such as audio descriptions, enhanced contrast, colour blind settings and customisable font size for the visually impaired.

### Easy to Learn

The UI uses language that is easy to follow, free of technical jargon and contains words, phrases and concepts familiar to the user as it is similar to language used in standard Windows and Mac OS operating systems that users are likely to be familiar with.

The design of the system is similar to standard modern web applications applications, with a main navigation bar on top with icons, user settings under profile, and search bar at the top right. This makes it easy to understand and remember for users already familiar with this type of design. Icons are similar to conventional icons such as those for print (printer), undo and redo (curved left and right arrows), search (magnifying glass), returning to previous page or next page (straight left and right arrows). All controls, buttons and icons have additional information which can be seen if the cursor is hovered over it (a tooltip).

Onscreen instructions are presented concisely while more detailed information can be found in help sections. This allows for quick explanations, less cluttering but more help can be provided if needed. Standard shortcut keys such as CTRL + C for copy and CTRL + V for paste are kept the same within the system as users are familiar with these.

### **Easy to Use**

Users can correct errors easily with undo or cancel buttons that pop up on screen for a short period of time. Commands that aren't available to the user are dimmed to provide intuitive visual feedback on what actions the user can perform. For staff, frequently used commands such as checking out or marking a game as returned will be on the home page for quick and easy access. Pressing the Gamifi logo, or pressing the home button or the home (house) icon returns users to the home page because it is intuitive and quick.

A search option with filtering allows users to search the database using whatever criteria they wish. Search results can be sorted with a simple drop down menu. Reservations and rental options can be found after clicking on the game object along with more information. However, reservation and rental options are also available on the search page if users wish to perform this commands quickly. If the user is logged in as a staff member, more options are available in the menu such as entering in returned games, adding new games or generating reports.

### **Enhance User Productivity**

Commands, tasks and functions are grouped logically so users can more quickly access tools and commands that are related to their task. In one particular page, staff have the option of generating a report, selecting the criteria by which to generate a report, and view past reports. This puts all options related to reporting together improving user productivity.

To reduce the time it takes for users to find needed commands, commonly used commands are located on the home page, e.g. staff might need to enter in a game return daily. All commands also have a corresponding shortcut key, which can be found in the help sections or when hovering over the corresponding button. Main commands are performed by using the CTRL key and the first letter of the command, such as CTRL + R for returning a game object. Less used commands might not follow the same pattern such as CTRL + E for cancelling a reservation. A search box is also available to find a command quickly. CTRL + F also opens up a search option to search all text on the page.

Default values are the most commonly used values. For a customer, the search bar would default to the most popular recent searches if the member is not logged in, or the member's most frequent searches if they are logged in. When entering new video games into the

system, the current year would be the default value for the game year. These features make common entries more efficient.

Users can enter in common phrases into the search option, and the system will try to match the most similar commands. For example, ‘Delete MW2’ will open up a dialog asking for confirmation of using the ‘REMOVE’ command on the game object ‘MW2’. Experienced users can also enter in short form commands such as ‘REM’ for ‘REMOVE’ to be more efficient, or use shortcut keys. Members can add tags to their search such as ‘+ new’ to search only for new game releases rather than selecting it in the criteria which may be slower.

### **Providing Help and Feedback**

If the system is unavailable for maintenance or due to an error, the main menu will display a message stating this. Furthermore, if maintenance has been planned, a dialog box will pop up reminding all current users, whether staff or members, 15 minutes prior to the maintenance break. If the system is unresponsive, a dialog box will pop up notifying users of that rather than make the user wait and guess.

A small question mark symbol next to panels opens up a help section for those controls when clicked. Hovering over buttons and commands shows a floating box that briefly describes what the control does. A dedicated help menu is available at the end of the menu. Help sections all have search options for users to quickly identify the help they need. Clicking the back arrow will take users back to where they requested help from so progress is not lost. If a member was searching for a game but couldn’t figure out how to reserve it, clicking the help menu, searching ‘reserve’ and then clicking the back button will take them back to the search list.

Errors that occur causes a dialog box to pop up with a clear message rather than a technical one. A user trying to rent a game that is unavailable will be faced with ‘This game is currently unavailable, please try again later’ rather than something similar to ‘INVALID OBJ 125’. Dialog boxes remain until users close them to allow for sufficient reading time. Any command that will take more than a few seconds to complete will prompt a progress bar to provide feedback to users, such as generating a report from every game that was in the system. Commands that does not create visible changes have a success or

non-success popup. For example, deleting a member profile will not be immediately obvious in a large database so a popup will notify staff if it was successful.

Users can exit any page at any point in time. Undo or cancel buttons pop up for a short period of time after the user performs an action. If data has been entered into a field but not submitted, a confirmation popup will appear with the no option defaulted before allowing users to exit.

All relevant information is kept on the same page. If a member is trying to update their profile, all relevant information such as contact, address, membership tier will be kept together.

### **Attractive Layout and Design**

A mostly grey and white palette is used to provide a clean and simple look to the interface rather than having gaudy colours. The Gamifi logos and game images have their own colours but menus and panels have the simpler palette. No animations will be used outside of simple loading as this provides very little value for the attention and space they take up.

A consistent typeface and format is used across all headings and menus to not confuse users. The font is Inter, a typeface designed specifically for user interfaces on screens and works well in different sizes. Buttons and controls used throughout the system will be located in the same position every time, such as Help and Close, which is always in the top-right. A staff member closing a report will click on the same Back button as a member closing their profile page. Mouse actions will always have the same or similar effect regardless of where they are used.

Default dialogues are concise, such as in error messages, but more detailed information can be accessed from the help section. This reduces screen cluttering. White space accounts for majority of the screen to reduce cluttering.

### Enhance the interface

Controls that can be toggled, such as view only or edit mode in the game database, clearly display the status of the control by a tick or absence of a tick next to the control.

List boxes are used where users select from one of many options rather than entering in their own value. This would be used in situations such as a member sorting their search by alphabetical order, price, title, release date etc.

Radio buttons are used when only one option can be selected, such as when a staff is selecting a membership tier for a new member.

Checkboxes are used when one or more choices are selected from a group, and selected options have an X inside the box to signify this. This would be used in situations such as when staff select multiple games to perform a command on in the system.

When dates have to be entered, such as when entering the publishing date of a new game object, a calendar control is used to only allow valid calendar dates to be selected.

### Data Entry Screens

Where logical, the form filling method has been used. This is used when staff enters in new game objects, manually reserves a game for a customer, or create a new user profile amongst other use cases. This restricts users to screen locations where data is entered reducing the possibility of erroneous input. At any point during the data entry process, staff or members can close the data entry screen without entering the record. However a confirmation dialog will pop up with the no option defaulted to ensure no accidental loss of data occurs. Users will also have to confirm a submission via pop up panel.

Every field has a short descriptive caption describing what is required for entry. A contact field would be labelled ‘Mobile or Landline number’. Users can move between fields at will, and can press Enter or Tab to move to the next field per convention. Users can change their input if they have no submitted yet in case an error was made. For staff members, changing fields that involve numbers such as cost of game, leading zeros and trailing zeros after a decimal point is not required. A game price that is stored as ‘\$085.00’ can be entered with ‘\$85’. Default values are present where appropriate such as when members rent games, the

default rental period would be 7 days. Constant values, such as return date when staff are manually returning games, would stay as the default value for successive entries.

### **Data Validation**

Data which must follow a sequence, such as game barcode, will not be submitted unless the staff member enters a valid sequence. Red text will appear to explain the admissible format. Data does not have optional input will be checked for an input before a submission can occur. These involves game rental price, membership tier and payment information among others. Data types are checked during data entry. Numerical values such as price and rental period must be numerical, character values such as game title must be character etc. Range checks are used in cases such as members entering a rental period which must be greater than '0' and when staff adds rental prices which must be greater than '0'.

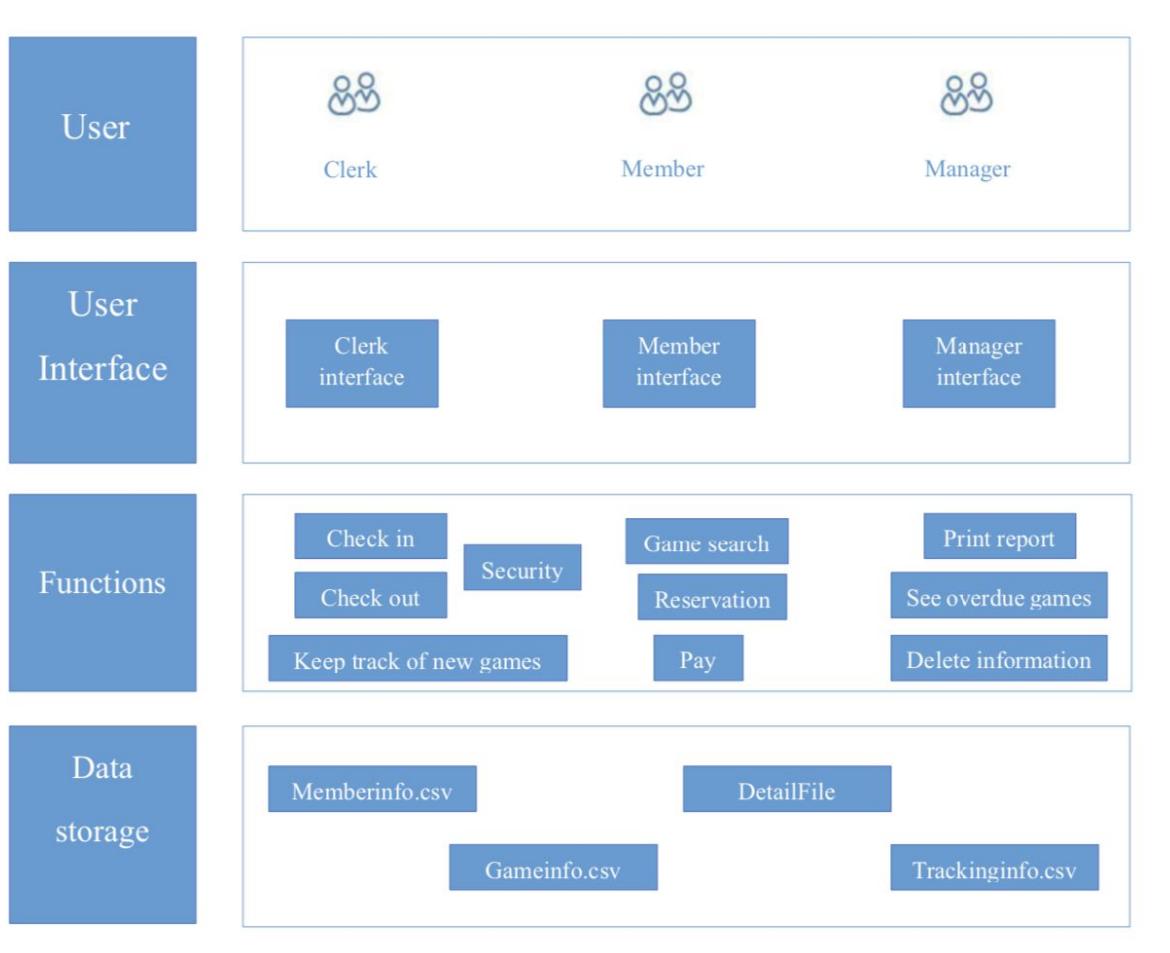
Reasonableness checks are used when questionable values are entered, requiring users to confirm that the entry was indeed intended. For example, if a staff member enters a release date of '1905' or if a member changes their home country to a different continent, these aren't necessarily wrong but are unusual values. Entries that must have certain values will prevent submissions from going through if these are not valid. If a member does not check the box for agreeing to user agreements, they will not be allowed to progress further. When staff members manually return multiple games, a batch control will ask staff to confirm that the total number of games is correct before progressing. This ensures staff errors such as miscounting or misplacement of inventory is less likely. To prevent errors, any commands that changes database values must be confirmed via a confirmation pop up before continuing.

### **Reduce Input Volume**

Data that can be retrieved from the system or calculated does not need to be entered. For example, a member does not need to enter the video game title after already selecting the video game object for rental. This makes the process easier for users and requires less work as well as reduce potential errors. Constant values does not need to be entered. For example, Members will not need to enter their own names when renting if they are logged in.

Staff may also reduce the amount of commands entered into the system by following short codes for commands such as 'REM' or 'RET' for removing or returning game objects.

## 4.7. System Architecture Design



- The first layer is data storage layer which holds the files that the system depends on.
- The second layer is the application layer. Functions like Check in and Check out are provided for clerks, Game search and reservation are for members, and delete for the manager.
- The third layer is presentation layer which provides interfaces for clerks, members and managers. This layer implements system interaction with users.
- The last layer is user layer which indicates the user composition of the system.

## 4.8. Prototyping Development

**The prototype is attached at the end as Appendix 1.**

The prototype is of two web applications: one for admins/internal and the other for customers. Both run in the browser, but the internal app can also be run as a desktop application in-store.

The admin app has five main pages, shown as tabs on the top of the screen:

1. **Home.** Contains quick actions to check in or out games for use in-store. Also contains a list of games due today and overdue to make check-out faster.
2. **Games.** Contains a list of all games in the system, allows admins to add or delete games and copies, filter them, and view a list of all copies and edit game and copy data.
3. **Members.** Contains a list of all members registered, allows admins to add or delete members and filter them.
4. **Loans.** Contains a list of all loans, allows admins to check in or check out copies with the loan, and filter them.
5. **Reports.** Contains an interface to view recent reports and generate new reports. This is not included in the current prototype as there is not enough information about what kinds of reports are wanted by management to design a prototype for this. However, it will have a similar design to the Members and Loans pages with a list of reports and a full-screen form interface with autofilling.

Throughout the app, the user can search for games, members, reports, or loans and can input commands in the search field, as described in [Section 4.6. User Interface Design](#).

There is also a global help menu and help buttons for each section. Throughout the prototype, purple is used to signify an element is interactable.

A back button appears in the top-left to take the user back to the associated main page.

The customer app has five main pages to browse games available for rent:

1. **Home.** Shows a curated list of games depending on what Gamifi wants to feature.
2. **For You.** Suggested games for the user based on their history.

3. **Latest.** Shows the latest games available for rent on Gamifi.
4. **Trending.** Shows the most popular games being rented on Gamifi.
5. **Browse.** Allows users to browse all games by category.

The customer app also allows users to search for games. The results are displayed in a two-column grid, with filter and sort options on the right. For You, Latest, Trending, and Browse have a similar interface, so these five pages are shown as only one screen in the prototype.

## 5. Conclusion

In conclusion, this project proposed for Gamifi will meet the business requirements and ultimately provide convenience to its customers and staff increasing productivity, efficiency and market reach, as stated earlier. It will allow the business to be more efficient in conducting its business functions and will allow the business to continue to expand and adapt as the market for video game rentals change. The project is to be delivered in 5 months on a budget of \$250,000.

## 6. Team Reflections

The team consists of five people – Xiaohan, Xinrui, Vivian, Edmond and Sidney. Though they all came from different countries such as Australia, China and the Philippines, they managed to work together as a team with active communication and team obligation. The team leader Xiaohan, also known as Jacky, other than having excellent team management skills, is also good at coding in Java, Python and SQL. Edmond has exceptional problem-solving skills and knowledge in Java and JavaScript while Sidney has excellent project user interface and web design skills. Xinrui, also known as Essie, has outstanding teamwork and analytical ability. Vivian is confident with her organisational skills when working on projects and is interested in data analytical tasks.

The team spoke regularly online and after each tutorial class, to ensure the progression of work are updated consistently. Workload was being divided evenly each time and all the team members were able to hand in their assigned tasks before our own designated due date. All team members were active listeners whenever questions or issues were raised by one of the members, where they aimed to solve the problem together as a team. Coming

together to agree on a project goal was never a difficulty for us because all the members were able to reply quickly to online group messages and it has shown their devotion to the project.

The project has not only deepened the team's knowledge of web information system designs, but also soft skills, such as decision-making skills, critical thinking skills, organisational skills and team cooperation. Members were able to shore up each other's weaknesses and work efficiently as a team by explaining concepts taught in lectures or tutorials to each other and brainstorming project ideas together, overall it has broadened the horizons of individual members.

In terms of limitations, there were parts that needed clarification in order for teammates to carry on with their work. There was a confusion between the actual prototype that we had to deliver and the user interface design part, and team members had experienced technical difficulties when designing the data flow diagram. However, the team was able to tackle the problems professionally by either asking on the learning platform – Ed or carrying out group discussion and exchanging ideas on what measures should be taken.

Since the project has provided an opportunity for the team to explore the area of study as a real-world simulation project, where the team is working in a company for clients, it is to believe that this will familiarize team members with project based environments. Being acquainted in system modelling and designing will provide team members more opportunities, and this is extremely useful for students who want to take part in project management degrees or information technology based careers. By learning to choose the most appropriate tools for creating diagrams and charts, it will also be beneficial for working on other projects in the coming future.

Overall, the team has learned to work together cohesively by demonstrating genuine commitment, outstanding communication skills and has gained knowledge on system modelling and designing of web information systems. The team is satisfied with the prototype and appreciates the opportunities given to practice working on a project as a team of professional IT consultants.

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# Appendix 1

# Prototype Design

Contains 12 screen designs. Pages 2–13 have all 12 screen designs including descriptions of the user interface and choices made.

Pages 14–25 have the same screen designs in high resolution.

The home page is the first page the user sees when opening the app. It contains quick actions and a list of games due today and overdue to be able to quickly check in or out games at the point of sale.

The screenshot shows the 'gamifi admin' home page with a navigation bar at the top featuring 'HOME' (selected), 'GAMES', 'MEMBERS', 'LOANS', and 'REPORTS'. A search bar says 'Search or enter command...'. Below the navigation is a 'Quick actions' section with four buttons: 'Check in' (house icon), 'Check out' (cart icon), 'New member' (people icon), and 'View reports' (graph icon). The main content area has three sections: 'Due today', 'Overdue', and 'Recent loans', each listing game titles, loaners, and due dates.

Section	Game Title	Loaned By	Due Date
Due today	Portal	Wen Yahui	
	Gears of War	Beatriz Brito	
	Final Fantasy X	Leon Hunt	
	Call of Duty: World at War	Nadine Petrolli	
	DeathSpank	Alicia Stanger	
Overdue	Dante's Inferno	Darren Adams	6 days
	Spore	Hubert Franck	5 days
	Wii Sports	Sofia Manzano	7 days
	Dead Rising	Gibby Radki	3 days
	Gears of War 3	Rahul Malviya	8 days
Recent loans	Dead Space	Dushane Daniel	9 days
	Spore	Juan Esteban	23/06/2019
	Final Fantasy X	Dominik Doudny	15/06/2019
	Portal	Harmen Porter	05/04/2019
	Gears of War 3	Nawf El Azam	16/12/2019

Includes global help menu with more localised help sections.

Quick actions section for use in store to quickly check in our out copies at the point of sale.

Lists games due today and overdue, with a button ➔ to quickly check those games in.

# Admin / Home / Check In Dialog

Page 3 of 25

This dialog appears when the user wants to check in or out a game.

The screenshot shows the 'gamifi admin' application interface. At the top, there's a navigation bar with tabs: HOME (which is selected), GAMES, MEMBERS, LOANS, and REPORTS. A search bar says 'Search or enter command...'. Below the navigation bar, there's a 'Quick actions' section with four buttons: 'Check in' (with a checkmark icon), 'Check out' (with a shopping cart icon), 'New member' (with a plus user icon), and 'View reports' (with a chart icon). To the left, under 'Due today', there's a list of games with their due dates: Portal (Wen Yahui, 23/06/2019), Gears of War (Beatriz Brito, 15/06/2019), Final Fantasy X (Leon Hunt, 05/04/2019), Call of Duty: World at War (Nadine Petrolli, 16/12/2019), and DeathSpank (Alicia Stanger, date unknown). In the center, a modal dialog titled 'Scan code to check in a copy' is open. It contains a barcode scanner interface with a red scanning area over a barcode and the number '12363847264822348090'. Below it, there's an 'Enter a code manually...' input field with a right-pointing arrow button. To the right of the dialog, a list of current loans is shown, including Spore (Juan Esteban, 23/06/2019), Final Fantasy X (Dominik Doudny, 15/06/2019), Portal (Harmen Porter, 05/04/2019), Gears of War 3 (Nawf El Azam, 16/12/2019), Call of Duty: World at War (Fukuyo Kazutoshi, 17/09/2019), Dead Space (Dushane Daniel, 21/04/2019), Army of Two: The 40th Day (Riley Cooper, 04/08/2019), Dead Rising (Jarrett Cawsey, 10/09/2019), and Batman: Arkham City (date unknown).

The dialog has its own help section and closes with the in the top-right corner.

The user is presented with a scanning interface that connects to a barcode scanner to scan barcodes without manual typing.

There is also an option to manually enter the code in case the scanner is unavailable.

This page is a directory to all the games recorded in the system, including all the copies and data associated with each. It also allows the user to add, edit, or change this data and check in or check out copies.

The screenshot shows the 'GAMES' tab selected in the top navigation bar of the 'gamifi admin' application. Below the navigation bar, there are sections for 'ACTIONS' (with '+ ADD GAME' and 'DELETE GAME' buttons) and 'FILTERS' (with dropdowns for 'Filter by category' and 'Filter by availability', and a 'RESET FILTERS' button). A search bar at the top right says 'Search or enter command...'. The main area displays a 4x5 grid of game cards, each containing a small cover art, the game title, and a status box indicating the number of available copies. The games listed are Spore, Gears of War, Final Fantasy X, Bleach, Kane & Lynch 2: Dog Days, Wii Sports, Portal, Spike and Suzy, Star Wars: The Force Unleashed, Call of Duty: World at War, Batman: Arkham City, Slam Dunk, Resident Evil 5, Dante's Inferno, Dead Space, KochiKame, Mirror's Edge, Prototype, Unreal Tournament 3, Diabolik, Dead Rising, Army of Two: The 40th Day, Gears of War 3, and One Piece.

Game Title	Available Copies
Spore	0 of 5 available
Gears of War	2 of 5 available
Final Fantasy X	5 of 9 available
Bleach	7 of 9 available
Kane & Lynch 2: Dog Days	1 of 4 available
Wii Sports	1 of 7 available
Portal	5 of 8 available
Spike and Suzy	1 of 8 available
Star Wars: The Force Unleashed	0 of 3 available
Call of Duty: World at War	2 of 8 available
Batman: Arkham City	2 of 7 available
Slam Dunk	8 of 7 available
Resident Evil 5	7 of 9 available
Dante's Inferno	2 of 5 available
Dead Space	0 of 5 available
KochiKame	2 of 5 available
Mirror's Edge	3 of 5 available
Prototype	2 of 3 available
Unreal Tournament 3	2 of 4 available
Diabolik	6 of 8 available
Dead Rising	
Army of Two: The 40th Day	
Gears of War 3	
One Piece	

Actions to edit data and filters appear at the top.

Games are presented in a 4-column grid with only the necessary information to differentiate each: the cover art, title, and number of copies available.

More detailed information, such as game category, publisher, year, etc. are not included here as it is not useful information on this page.

Each game from the main Games page has a Detail page that shows all the information of the game and its copies that are recorded in the system.

The screenshot shows the 'Games' tab selected in the top navigation bar. Below it, the game title 'Army of Two: The 40th Day' is displayed with a small thumbnail image. A summary indicates there are 18 copies total, with 12 available, 6 rented, and 2 overdue. Below this, a table lists 14 individual game copies, each with a unique serial number, rental status (Available, Rented, Overdue), due date, loaned-to person, and a details button. Buttons for 'Edit Game Info' and 'View Reports' are also present.

No.	Serial Number	Status	Due Date	Loaned To	Action
00	12363847264822348090	Rented	06/08/2019	Olivia Arribas	[Details]
01	97623579832768423768	Available			[Details]
02	23487989324798274932	Overdue	17/01/2019	Oscar de la Cavalleria	[Details]
03	76845874368756139133	Rented	02/03/2019	Waiano Akarana	[Details]
04	45738957930123809023	Available			[Details]
05	38924798347598347896	Available			[Details]
06	45498679274983274982	Available			[Details]
07	12436124312784683864	Available			[Details]
08	98560957469873984709	Rented	08/07/2019	Nerte Gronw	[Details]
09	76182736182319823791	Available			[Details]
10	46759374598379810923	Available			[Details]
11	09281309283981723981	Overdue	24/05/2019	Benedikt Safiyulin	[Details]
12	09588749857981302873	Available			[Details]
13	65879874359712308231	Rented	03/07/2019	Chioke Chinasa	[Details]
14	34234273479752304820	Available			[Details]

An overview of the statuses of the copies are on top.

Actions to edit game info and copies are grouped together in one row. Clicking on Check In or Check Out will show the scanning interface on page 3.

Copies of the game are listed with the serial number, rental status, due date, and loan information. Clicking on the [Details] button takes the user to the corresponding loan page.

The full-screen form interface that is displayed when the user clicks Add Game on the main Games page.

The screenshot shows a full-screen form titled "Add Game". At the top, there's a navigation bar with icons for HOME, GAMES (which is highlighted), MEMBERS, LOANS, and REPORTS. A search bar says "Search or enter command...". Below the title, there's an "Autofill" section with a link to IMDB and a search input field. The main form fields are arranged in rows: Title (Resident Evil 5), Caption (Horror), Publisher (Capcom), Year (2008), Edition (1), and a large text area for Description containing a paragraph about Wolfgang Amadeus Mozart. At the bottom, there's a "Copies" section with a checkbox for "Scan Barcode" and a "Serial number" input field with a "+" button.

Autofill

Search for a game on IMDB and automatically fill in details

Search for game...

Title  
Resident Evil 5

Caption  
Horror

Publisher  
Capcom

Year  
2008

Edition  
1

Description

The life, success and troubles of Wolfgang Amadeus Mozart, as told by Antonio Salieri, the contemporary composer who was insanely jealous of Mozart's talent and claimed to have murdered him.

Copies

Add copies of the game by scanning barcodes or manually entering serial numbers

SCAN BARCODE

Serial number

+

Autofills information from IMDB to save the user's time.

Form fields are ordered top-bottom, left-right and show a icon when information has been autofilled.

The user can scan a barcode instead of manually typing the serial number in. Clicking Scan Barcode will show the scanning interface on page 3.

The Members page shows a list of all the members in the system, quickly showing their loaned games and allows the user to edit information associated with each member.

The screenshot shows the 'Members' tab selected in the navigation bar of the 'gamifi admin' application. The page includes a search bar, filter dropdowns for membership tier and loan status, and buttons for adding or deleting members. A table lists member details such as full name, membership tier, active loan, and an edit icon.

Full Name	Membership Tier	Active Loan	Edit
Roelof Bekkenenks	● Standard	DeathSpank	edit
Ekaterina Tankova	★ Premium	Portal	edit
Winny Rearie	● Standard		edit
Kendasha Wood	● Standard	Dead Rising	edit
Sara Scholz	★ Premium		edit
Gatsharan Sangrota	● Standard	Overdue - Batman: Arkham City	edit
Amachea Jajah	● Standard		edit
Kita Chihoko	● Standard		edit
Cardarion Hart	● Standard	Prototype	edit
Rita Leite	★ Premium		edit
Farhad Tarokh	● Standard	Overdue - Kane & Lynch 2: Dog Days	edit
Dana Kopřivová	● Standard		edit
Vuong Mộng Nhi	★ Premium	Call of Duty: World at War	edit
Izabella Tabakova	● Standard	Final Fantasy X	edit
Beatriz Brito	● Standard		edit
Leonetta Lloyd	★ Premium		edit

Actions to edit data and filters appear at the top.

The list displays the member's full name, membership tier, and active loan. On the right, the edit button allows the user to edit the member's information.

The list can be infinitely scrolled without pagination.

The full-screen form interface that is displayed when the user clicks Add Member or Edit Member, where it will have the title “Edit Member” and show the name of the member being edited.

The screenshot shows a 'Members' section of a software application. At the top, there are navigation links: 'ALL MEMBERS' (with a back arrow), 'HOME', 'GAMES', 'MEMBERS' (which is underlined in blue), 'LOANS', and 'REPORTS'. A search bar says 'Search or enter command...'. Below this, the title 'Add Member' is displayed. There is a 'Autofill' section with a 'SCAN LICENCE' button. The main form fields include: 'First Name' (Diana), 'Last Name' (Campos), 'Date of Birth' (24/03/1992), 'Mobile Number' (disabled), 'Address' (42 Wallaby Way, Sydney NSW 2000), 'Membership Tier' (Standard), 'Payment Method' (disabled), and a 'SAVE' button. A note at the bottom says 'Missing fields: Mobile Number, Payment Method'.

Autofills information from scanning a member's driver's licence (in-store).

Form fields are ordered top-bottom, left-right and show a icon when information has been autofilled.

The user can have payment information autofilled by scanning the member's credit card (in-store).

The form will show which fields are missing and grey-out the disabled Save button.

Displays a list of all loans—active and complete. Also allows the user to check in or check out copies of games to start a new loan or resolve other loans.

The screenshot shows the 'LOANS' tab selected in the navigation bar. At the top, there are 'ACTIONS' buttons for 'CHECK IN' and 'CHECK OUT'. Below them are 'FILTERS' for 'Loan status', 'Game', and 'Game category', along with a 'RESET FILTERS' button. The main area displays a table of loans:

Full Name	Loaned To	Due Date	Due In ↓	Check in
Scrabble	● Julian Gruber	17/04/2019	⌚ 2 days	↗
Yahtzee	● Lennert Nijenbijvank	24/02/2019	⌚ 6 days	↗
Operation	★ Stormie Hansford	19/07/2019	⌚ 10 days	↗
Sorry!	● Ninenna Jioke	15/06/2019	⌚ 3 days	↗
Uno	● Akumjeli Akuchi	03/10/2019	⌚ 8 days	↗
The Game of Life	● Yamaha Toshinobu	16/01/2019	⌚ 1 day	↗
Checkers	★ Jozef Kondratovich	06/04/2019	⌚ 14 days	↗
Chess	● Azah Anyeni	29/05/2019	⌚ Today	↗
Pictionnary	● Fua Lamba	24/08/2019	⌚ 1 day ago	↗
Scattergories	● Nieki Bove	10/01/2019	⌚ 3 days ago	↗
Guess Who?	● Henk Fortuin	24/05/2019		
Risk	★ Chukwudi Udo	30/05/2019		
Trouble	● Cao Yu	06/11/2019		
Connect Four	● Alexander Ljung	17/11/2019		
Clue	★ Matilda Evans	22/10/2019		
Trivial Pursuit	● Homura Yunosuke	08/03/2019		

Actions to check in or check out copies and filters appear at the top.

The list displays the game loaned, who it was loaned to, the due date, and a calculated number of days the loan is due. On the right, the ↗ button allows the user to scan the game's barcode and mark the loan as complete.

The list can be infinitely scrolled without pagination.

# Customer / For You

Page 10 of 25

Displays a list of games recommended to the customer, which can be filtered and sorted. The Latest, Trending, Browse, and Search results page are similar to this with different titles instead of “Suggested For You”.

The screenshot shows the 'For You' section of the gamifi website. At the top, there's a navigation bar with links for HOME, FOR YOU (which is underlined), LATEST, TRENDING, and BROWSE. A search bar says 'Search games...'. To the right are icons for account and cart. Below the navigation is a heading 'Suggested For You' followed by a subtitle 'Games suggested for you based on your rental history, search history, and game ratings'. The main content area displays a grid of 12 game cards. Each card includes a thumbnail, the game title, its rating (e.g., ★★★★★), a brief description, and two buttons: 'ADD TO CART' or 'RESERVE'. To the right of the grid is a 'Filters' sidebar with sections for Availability, Sort By (set to Relevance), Categories (Action, Simulation, Horror, Adventure, Puzzle, Sport, Role-playing), Rating (a slider from 0.0 to 2.7), and a 'RESET FILTERS' button.

Game	Rating	Description	Action
Kane & Lynch 2: Dog...	★★★★★	The life, success and troubles of Wolfgang Amadeus Mozart, as told by Antonio Salieri, the	ADD TO CART
Unreal Tournament 3	★★★★★	A spoiled heiress running away from her family is helped by a man who is actually a reporter in need	ADD TO CART
DeathSpank	★★★★★	The dramatic lives of trapeze artists, a clown, and an elephant trainer are told against a	ADD TO CART
Portal	★★★★★	Acting under the cover of a Hollywood producer scouting a location for a science fiction film, a	RESERVE
Spore	★★★★★	An ingenue insinuates herself into the company of an established but aging stage actress and her circle	ADD TO CART
Batman: Arkham City	★★★★★	A former Roman General sets out to exact vengeance against the corrupt emperor who murdered his	ADD TO CART
Dead Space	★★★★★	In Hawaii in 1941, a private is cruelly punished for not boxing on his unit's team, while his captain's	ADD TO CART
Devil May Cry 4	★★★★★	A young FBI cadet must receive the help of an incarcerated and manipulative cannibal killer to help	ADD TO CART
Gears of War	★★★★★	A sexually frustrated suburban father has a mid-life crisis after becoming infatuated with his	ADD TO CART
Dante's Inferno	★★★★★	The story of T.E. Lawrence, the English officer who successfully united and led the diverse, often	RESERVE
Resident Evil 5	★★★★★	After settling his differences with a Japanese P.O.W. camp commander, a British Colonel co-	RESERVE
Star Wars: The Force...	★★★★★	The triumphs and tragedies of two English families, the upper-crust Marvells and the working-class	ADD TO CART

Filters and sort controls appear as a column on the right.

Games are displayed as a two-column grid with the cover art, title, rating, and description to assist the user in deciding whether to rent the game or not. Other information that does not assist in this does not appear here.

The user can click Add to Cart or Reserve from this page, depending on the game's availability.

The list can be infinitely scrolled without pagination.

# Customer / Game Detail

Page 11 of 25

Each game has a detail page that also allows the user to add it to cart to rent. It shows all the information about the game and ratings by other members.

The screenshot shows a game detail page for "Army of Two: The 40th Day". At the top, there's a navigation bar with icons for BACK, HOME, FOR YOU, LATEST, TRENDING, and BROWSE, followed by a search bar and a shopping cart icon. The main content area features the game's cover art, title, and rating. Below the title, there are "Suggested for you" and "Trending on Gamifi" cards. A purple "ADD TO CART" button is prominently displayed. The "Description" section contains a brief plot summary. Technical details like category (Action), year (2014), edition (2), and publisher (Peanuts Games Inc.) are listed. The "Gamifi Members' Ratings" section shows a rating of 3.7 from 15 ratings, accompanied by a horizontal bar chart. Two recent reviews are listed: one from Hu Hyon-Suk and another from Margje Jutten, both dated 1 day ago and 5 days ago respectively.

ARMY OF TWO:  
The 40th Day

Suggested for you   Trending on Gamifi

Rated 3.7 by Gamifi members

ADD TO CART

Description

The accidental death of the older son of an affluent family deeply strains the relationships among the bitter mother, the good-natured father, and the guilt-ridden younger son.

CATEGORY Action   YEAR 2014  
EDITION 2   PUBLISHER Peanuts Games Inc.

Gamifi Members' Ratings

3.7   ★★★★☆  
15 ratings

Hu Hyon-Suk   ★★★★☆   1 day ago

Margje Jutten   ★★★★☆   5 days ago

Displays the cover art, title, and rating on top, with a purple Add to Cart call to action button.

Information about the game is displayed here, excluding information about each copy, which is internal only.

The ratings from Gamifi members appear here. Members can only rate games that they have previously rented.

The user page shows all the user's information, including membership tier and payment method, which can be edited. It also shows the currently loaned games and rental history.

The screenshot displays a user profile interface for 'Aaron'. On the left, there's a sidebar with sections for 'Your Info' (containing details like first name, last name, date of birth, mobile, address, and an 'EDIT' button), 'Membership' (listing benefits of Premium status like early access and prioritised reservations, with a 'CHANGE MEMBERSHIP' button), and 'Payment Method' (showing a card ending in 1234, added on 04/01/2019, used for 9 purchases, with an 'EDIT PAYMENT METHOD' button). The main content area is titled 'Your Games' and lists three games: 'Kane & Lynch 2: Dog Days' (overdue), 'Resident Evil 5' (due in 2 days), and 'Devil May Cry 4' (due in 3 days). Below this is the 'Rental History' section, which lists six games: 'Final Fantasy X' (3 days ago, rated), 'Prototype' (5 days ago, rateable), 'Spore' (12 days ago, rated), 'Mirror's Edge' (24 days ago, rateable), 'Army of Two: The 40th Day' (1 month ago, rateable), and 'Portal' (1 month ago, rated).

On the left, all user information is available and editable.

Games listed here show their cover art, title, and due date. Users can also rate games using the Rate button.

## Quick actions

[Check in](#)[Check out](#)[New member](#)[View reports](#)

## Due today



**Portal**  
👤 Wen Yahui



**Gears of War**  
👤 Beatriz Brito



**Final Fantasy X**  
👤 Leon Hunt



**Call of Duty: World at War**  
👤 Nadine Petrolli



**DeathSpank**  
👤 Alicia Stanger

## Overdue



**Dante's Inferno**  
👤 Darren Adams

⌚ 6 days



**Spore**  
👤 Hubert Franck

⌚ 5 days



**Wii Sports**  
👤 Sofia Manzano

⌚ 7 days



**Dead Rising**  
👤 Gibby Radki

⌚ 3 days



**Gears of War 3**  
👤 Rahul Malviya

⌚ 8 days



**Dead Space**  
👤 Dushane Daniel

⌚ 9 days

## Recent loans



**Spore**  
👤 Juan Esteban

📅 23/06/2019



**Final Fantasy X**  
👤 Dominik Doudny

📅 15/06/2019



**Portal**  
👤 Harmen Porter

📅 05/04/2019



**Gears of War 3**  
👤 Nawf El Azam

📅 16/12/2019



**Call of Duty: World at War**  
👤 Fukuyo Kazutoshi

📅 17/09/2019



**Dead Space**  
👤 Igor Antonovich

📅 21/04/2019



**Army of Two: The 40th Day**  
👤 Riley Cooper

📅 04/08/2019



**Dead Rising**  
👤 Jarrett Cawsey

📅 10/09/2019



**Batman: Arkham City**

## Quick actions

[Check in](#)[Check out](#)[New member](#)[View reports](#)

## Due today

**Portal**

by Wen Yahui

**Gears of War**

by Beatriz Brito

**Final Fantasy X**

by Leon Hunt

**Call of Duty: World at War**

by Nadine Petrolli

**DeathSpank**

by Alicia Stanger

### Scan code to check in a copy



12363847264822348090

or

[Enter a code manually...](#)**Gears of War 3**

by Rahul Malviya

⌚ 8 days

**Call of Duty: World at War**

by Fukuyo Kazutoshi

⌚ 17/09/2019

**Dead Space**

by Dushane Daniel

⌚ 9 days

**Dead Space**

by Igor Antonovich

⌚ 21/04/2019

**Army of Two: The 40th Day**

by Riley Cooper

⌚ 04/08/2019

**Dead Rising**

by Jarrett Cawsey

⌚ 10/09/2019

**Batman: Arkham City**

## Pending loans

**Spore**

by Juan Esteban

⌚ 23/06/2019

**Final Fantasy X**

by Dominik Doudny

⌚ 15/06/2019

**Portal**

by Harmen Porter

⌚ 05/04/2019

**Gears of War 3**

by Nawf El Azam

⌚ 16/12/2019

**Call of Duty: World at War**

by Fukuyo Kazutoshi

⌚ 17/09/2019

**Dead Space**

by Igor Antonovich

⌚ 21/04/2019

**Army of Two: The 40th Day**

by Riley Cooper

⌚ 04/08/2019

**Dead Rising**

by Jarrett Cawsey

⌚ 10/09/2019

## ACTIONS

[+ ADD GAME](#) [DELETE GAME](#)

## FILTERS

[Filter by category](#)[Filter by availability](#) [RESET FILTERS](#)**Spore**

0 of 5 available

**Gears of War**

2 of 5 available

**Final Fantasy X**

5 of 9 available

**Bleach**

7 of 9 available

**Kane & Lynch 2:  
Dog Days**

1 of 4 available

**Wii Sports**

1 of 7 available

**Portal**

5 of 8 available

**Spike and Suzy**

1 of 8 available

**Star Wars: The  
Force Unleashed**

0 of 3 available

**Call of Duty:  
World at War**

2 of 8 available

**Batman: Arkham  
City**

2 of 7 available

**Slam Dunk**

8 of 7 available

**Resident Evil 5**

7 of 9 available

**Dante's Inferno**

2 of 5 available

**Dead Space**

0 of 5 available

**KochiKame**

2 of 5 available

**Mirror's Edge**

3 of 5 available

**Prototype**

2 of 3 available

**Unreal  
Tournament 3**

2 of 4 available

**Diabolik**

6 of 8 available

**Dead Rising****Army of Two: The  
40th Day****Gears of War 3****One Piece**



# Army of Two: The 40th Day

**18 copies total**

✓ 12 available   ⏱ 6 rented   ! 2 overdue

ACTIONS



[EDIT GAME INFO](#)

[VIEW REPORTS](#)

[+ ADD COPY](#)

[EDIT COPIES](#)

[CHECK IN](#)

[CHECK OUT](#)

PUBLISHER Peanuts Games Inc.

EDITION 2

YEAR 2014

CATEGORY Action

RATING 3.7 ★ ★ ★ ★ ★

DESCRIPTION

The accidental death of the older son of an affluent family deeply strains the relationships among the bitter mother, the good-natured father, and the guilt-ridden younger son.

No.	Serial Number	Status	Due Date	Loaned To	Loan
00	12363847264822348090	⌚ Rented	06/08/2019	Olivia Arribas	
01	97623579832768423768	✓ Available			
02	23487989324798274932	! Overdue	17/01/2019	Oscar de la Cavallería	
03	76845874368756139133	⌚ Rented	02/03/2019	Waiano Akarana	
04	45738957930123809023	✓ Available			
05	38924798347598347896	✓ Available			
06	45498679274983274982	✓ Available			
07	12436124312784683864	✓ Available			
08	98560957469873984709	⌚ Rented	08/07/2019	Nerte Gronw	
09	76182736182319823791	✓ Available			
10	46759374598379810923	✓ Available			
11	09281309283981723981	! Overdue	24/05/2019	Benedikt Safiyulin	
12	09588749857981302873	✓ Available			
13	65879874359712308231	⌚ Rented	03/07/2019	Chioke Chinasa	
14	34234273479752304820	✓ Available			

# Add Game



## Autofill

Search for a game on IMDB and automatically fill in details



Search for game...

Title

Resident Evil 5



Caption

Horror



Publisher

Capcom



Year

2008



Edition

1

Edition

The life, success and troubles of Wolfgang Amadeus Mozart, as told by Antonio Salieri, the contemporary composer who was insanely jealous of Mozart's talent and claimed to have murdered him.



## Copies



Add copies of the game by scanning barcodes or manually entering serial numbers

SCAN BARCODE

Serial number





## ACTIONS

[+ ADD MEMBER](#) [DELETE MEMBER](#)

## FILTERS



Filter by membership

Filter by loan status

 [RESET FILTERS](#)

Full Name	Membership Tier	Active Loan	Edit
Roelof Bekkenenks	Standard	DeathSpank	
Ekaterina Tankova	Premium	Portal	
Winny Rearie	Standard		
Kendasha Wood	Standard	Dead Rising	
Sara Scholz	Premium		
Gatsharan Sangrota	Standard	Overdue – Batman: Arkham City	
Amachea Jajah	Standard		
Kita Chihoko	Standard		
Cardarion Hart	Standard	Prototype	
Rita Leite	Premium		
Farhad Tarokh	Standard	Overdue – Kane & Lynch 2: Dog Days	
Dana Kopřivová	Standard		
Vương Mộng Nhi	Premium	Call of Duty: World at War	
Izabella Tabakova	Standard	Final Fantasy X	
Beatriz Brito	Standard		
Leonetta Lloyd	Premium		

# Add Member

## 💡 Autofill

Scan a driver's licence to automatically fill personal information



SCAN LICENCE

First Name

Diana



Last Name

Campos



Date of Birth

24/03/1992



Format: DD/MM/YYYY

Mobile Number

Format: 61 234 567 890 or (02) 1234 5678

Address

42 Wallaby Way, Sydney NSW 2000

Membership Tier  
Standard

## 💳 Payment Method



Scan a debit or credit card to automatically fill payment information

SCAN CARD

SAVE

## ❗ Missing fields

Mobile Number, Payment Method



## ACTIONS



CHECK IN

CHECK OUT

## FILTERS



Loan status

Game

Game category

RESET FILTERS

Full Name	Loaned To	Due Date	Due In	Check in
Scrabble	● Julian Gruber	17/04/2019	⌚ 2 days	
Yahtzee	● Lennert Nijenbijvank	24/02/2019	⌚ 6 days	
Operation	★ Stormie Hansford	19/07/2019	⌚ 10 days	
Sorry!	● Nnenna Jioke	15/06/2019	⌚ 3 days	
Uno	● Akumjeli Akuchi	03/10/2019	⌚ 8 days	
The Game of Life	● Yamaha Toshinobu	16/01/2019	⌚ 1 day	
Checkers	★ Jozef Kondratovich	06/04/2019	⌚ 14 days	
Chess	● Azah Anyeni	29/05/2019	⌚ Today	
Pictionary	● Fua Lamba	24/08/2019	❗ 1 day ago	
Scattergories	● Niek Bove	10/01/2019	❗ 3 days ago	
Guess Who?	● Henk Fortuin	24/05/2019		
Risk	★ Chukwudi Udo	30/05/2019		
Trouble	● Cao Yu	06/11/2019		
Connect Four	● Alexander Ljung	17/11/2019		
Clue	★ Matilda Evans	22/10/2019		
Trivial Pursuit	● Homura Yunosuke	08/03/2019		

# Suggested For You

Games suggested for you based on your rental history, search history, and game ratings



## Kane & Lynch 2: Dog...

The life, success and troubles of Wolfgang Amadeus Mozart, as told by Antonio Salieri, the


 [ADD TO CART](#)


## Unreal Tournament 3

A spoiled heiress running away from her family is helped by a man who is actually a reporter in need


 [ADD TO CART](#)


## DeathSpank

The dramatic lives of trapeze artists, a clown, and an elephant trainer are told against a


 [ADD TO CART](#)


## Portal

Acting under the cover of a Hollywood producer scouting a location for a science fiction film, a


 [RESERVE](#)


## Spore

An ingenue insinuates herself into the company of an established but aging stage actress and her circle


 [ADD TO CART](#)


## Batman: Arkham City

A former Roman General sets out to exact vengeance against the corrupt emperor who murdered his


 [ADD TO CART](#)


## Dead Space

In Hawaii in 1941, a private is cruelly punished for not boxing on his unit's team, while his captain's


 [ADD TO CART](#)


## Devil May Cry 4

A young FBI cadet must receive the help of an incarcerated and manipulative cannibal killer to help


 [ADD TO CART](#)


## Gears of War

A sexually frustrated suburban father has a mid-life crisis after becoming infatuated with his


 [ADD TO CART](#)


## Dante's Inferno

The story of T.E. Lawrence, the English officer who successfully united and led the diverse, often


 [RESERVE](#)


## Resident Evil 5

After settling his differences with a Japanese P.O.W. camp commander, a British Colonel co-


 [RESERVE](#)


## Star Wars: The Force...

The triumphs and tragedies of two English families, the upper-crust Marrvots and the working-class


 [ADD TO CART](#)

## Filters

### AVAILABILITY

Available only

### SORT BY

Relevance

### CATEGORIES

Action

Simulation

Horror

Adventure

Puzzle

Sport

Role-playing

### RATING

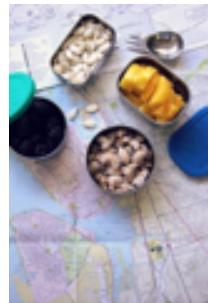
0.0

2.7

RESET FILTERS

[← BACK](#)[HOME](#)[FOR YOU](#)[LATEST](#)[TRENDING](#)[BROWSE](#) Search games...

⋮



# Army of Two: The 40th Day

[Suggested for you](#)[Trending on Gamifi](#)

★ ★ ★ ★ ☆    Rated 3.7 by Gamifi members

[ADD TO CART](#)

## Description

The accidental death of the older son of an affluent family deeply strains the relationships among the bitter mother, the good-natured father, and the guilt-ridden younger son.

CATEGORY Action

EDITION 2

YEAR 2014

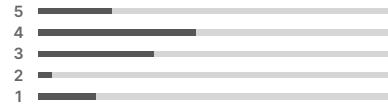
PUBLISHER Peanuts Games Inc.

## Gamifi Members' Ratings

**3.7**

★★★★☆

15 ratings



Hu Hyon-Suk

★★★★☆

1 day ago

Margje Jutten

★★★★☆

5 days ago

Hi, Aaron!

## Your Games

## Your Info

FIRST NAME	Aaron
LAST NAME	Smith
DATE OF BIRTH	28/10/1997
MOBILE	61 234 567 890
ADDRESS	42 Wallaby Way Sydney NSW 2000

EDIT

## Membership

## Premium

- First to know when new games are available
- Prioritised game reservations
- Longer rental periods
- Special orders for unavailable games

CHANGE MEMBERSHIP

## Payment Method

## Card ending in \*\*\*1234

Added on 04/01/2019  
Used for 9 purchases

EDIT PAYMENT METHOD

Kane & Lynch 2: Dog Days

! Overdue (1 day) RATE

Devil May Cry 4

⌚ Due in 3 days RATED

Resident Evil 5

⌚ Due in 2 days RATE

## Rental History

Final Fantasy X

⌚ 3 days ago RATED

Prototype

⌚ 5 days ago RATE

Spore

⌚ 12 days ago RATED

Mirror's Edge

⌚ 24 days ago RATE

Army of Two: The 40th Day

⌚ 1 month ago RATE

Portal

⌚ 1 month ago RATED

Hi, Aaron!

## Your Games

## Your Info



FIRST NAME Aaron  
LAST NAME Smith  
DATE OF BIRTH 28/10/1997  
MOBILE 61 234 567 890  
ADDRESS 42 Wallaby Way, Sydney NSW 2000

EDIT

## Membership

## Premium

- First to know when new games are available
- Prioritised game reservations
- Longer rental periods
- Special orders for unusual requests

CHANGE MEMBERS

## Edit Your Info

First Name

Aaron

Last Name

Smith

Date of Birth

28/10/1997

Format: DD/MM/YYYY

Mobile Number

61 234 567 890

Format: 61 234 567 890 or (02) 1234 5678

Address

42 Wallaby Way, Sydney NSW 2000

DONE

RATE

## Payment Method



Card ending in \*\*\*\*1234

Added on 04/01/2019

Used for 9 purchases

EDIT PAYMENT METHOD

## Spore

12 days ago

RATED

## Mirror's Edge

24 days ago

RATE

## Army of Two: The 40th Day

1 month ago

RATE

## Portal

1 month ago

RATED