

# GameDex

*Your game shelf for the modern day!*

## **Development Team**

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## **Executive Summary**

Over the past forty years since Pong broke into the mainstream consciousness the gaming industry has exploded in scale and profitability with market research firm Newzoo estimating that the gaming market to be worth \$99.6 billion dollars in 2016<sup>1</sup>. This level of success has unleashed a torrent of different titles and created an increasingly difficult asset management problem for the gaming public.

In previous decades game owners would be content with placing their physical game boxes on a bookshelf. This enabled them to easily survey the vast swath of entertainment they had accumulated, invite friends over to boast or share, and perhaps most importantly select a title to play. But in today's increasingly digital world physical media has fallen to the wayside and been replaced by disparate digital distribution systems. Gamers no longer have a single source—no metaphorical bookshelf—from which they can view all of their titles. GameDex aims to solve this problem!

GameDex's primary objective will enable users to create and manage an inventory of their game collection. Guest users will be able to search for their friends' profiles and view their game collection. This inventory will become users' new virtual bookshelves that can serve as a single point of reference for their entire game collections. In addition, users will be able to view and compare their collections to help facilitate playing games together.

With the power offered to them by GameDex, users will be able to quickly and easily answer questions such as:

- Which game should I play?
- Which games are multiplayer?
- Which game system or game launcher do I need to start to play a particular game?
- Which system do I need to play with my friends?
- What games do my friends have?
- Can I play this game with my friend?

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<sup>1</sup> Minotti, Mike. "Video games will become a \$99.6B industry this year as mobile overtakes consoles and PCs." VentureBeat. N.p., 21 Apr. 2016. Web. 16 Jan. 2017.

## User Archetypes

### The Neophyte

Motivations	The casual gamer just wants to quickly jump into a game when they're bored. They're usually content with the games they already own and are less sensitive to new releases but are willing to add games to their library if their interest is piqued. Casual gamers will generally be less technically savvy than more experienced gamers and are thus more sensitive to complex software designs.
Goals	Wants to play games they own. Values speed and ease when picking a game to play.
Frustrations	Games that are incompatible with their system. Inability to play games due to cross-compatibility issues. Confusion about what system or launcher to use to play a game.

### The Veteran

Motivations	The hardcore gamer often buys the latest and greatest games immediately upon release. As a result, they generally have a sizeable collection of games spread across multiple competing online services. While these gamers need less handholding than their casual counterparts they still appreciate the convenience of knowing what games they have and where they can launch them from. Also, given their experience using technology these users are more technically adept than their casual gaming counterparts and are thus able to navigate slightly more advanced software designs.
Goals	Wants to play the latest popular games. Wants to know what games their friends have and are playing. Wants to quickly identify games by features such as genre or multiplayer capabilities.
Frustrations	Games that are incompatible with their system. Inability to play games due to cross-compatibility issues.  Forgetting which system or launcher to use to play a particular game.

### The Collector

Motivations	The connoisseur of games maintains an unusually large number of games often dating back many years. The collector is less concerned with the latest and greatest game knowing that in time they will be able to acquire the game at a reduced cost at a later date. The collector is
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often interested in maintaining libraries of complete series and titles of historical significance such as genre defining games. Due to the challenge of making older games function on contemporary hardware these users are frequently quite technically savvy and are able to navigate complex software designs.

Goals	Wants to play games they own. Wants to track the games they own. Wants to satisfy the collector's urge. Uses their game collection to help define themselves. Wants to use their collection to help educate and inspire.
Frustrations	Inability to browse through their library. Losing track of which games are in their library. Forgetting which system the game is tied to. Forgetting certain features a game may or may not have. Witnessing games fade into the mists of time and being forgotten.

## Execution

GameDex will be a user profile driven asset management system. The front end will be constructed from industry standard languages such as HTML, CSS, and Javascript. The backend will be hosted on Google's Firebase web service.

With respect to user accounts we initially intend to maintain the following data:

- Username (text)
- Password (password)
- Display name (text)
- E-mail address (text)

With respect to the game libraries we initially intend to maintain the following data:

- Cover art (image)
- Title (text)
- Description (text)
- Release date (number)
- Purchase price (number)
- Game system (ordinal)
  - E.g. PC, MacOS, Linux, PS4, XBOX, etc
- Media or Service type (ordinal)
  - Physical, GOG, Battle.net, Steam, etc
- Genre (ordinal)
- Completed playthrough (boolean)
- Still functional (boolean)

- Notes (text)
- Screenshots (image)

## **Weakness**

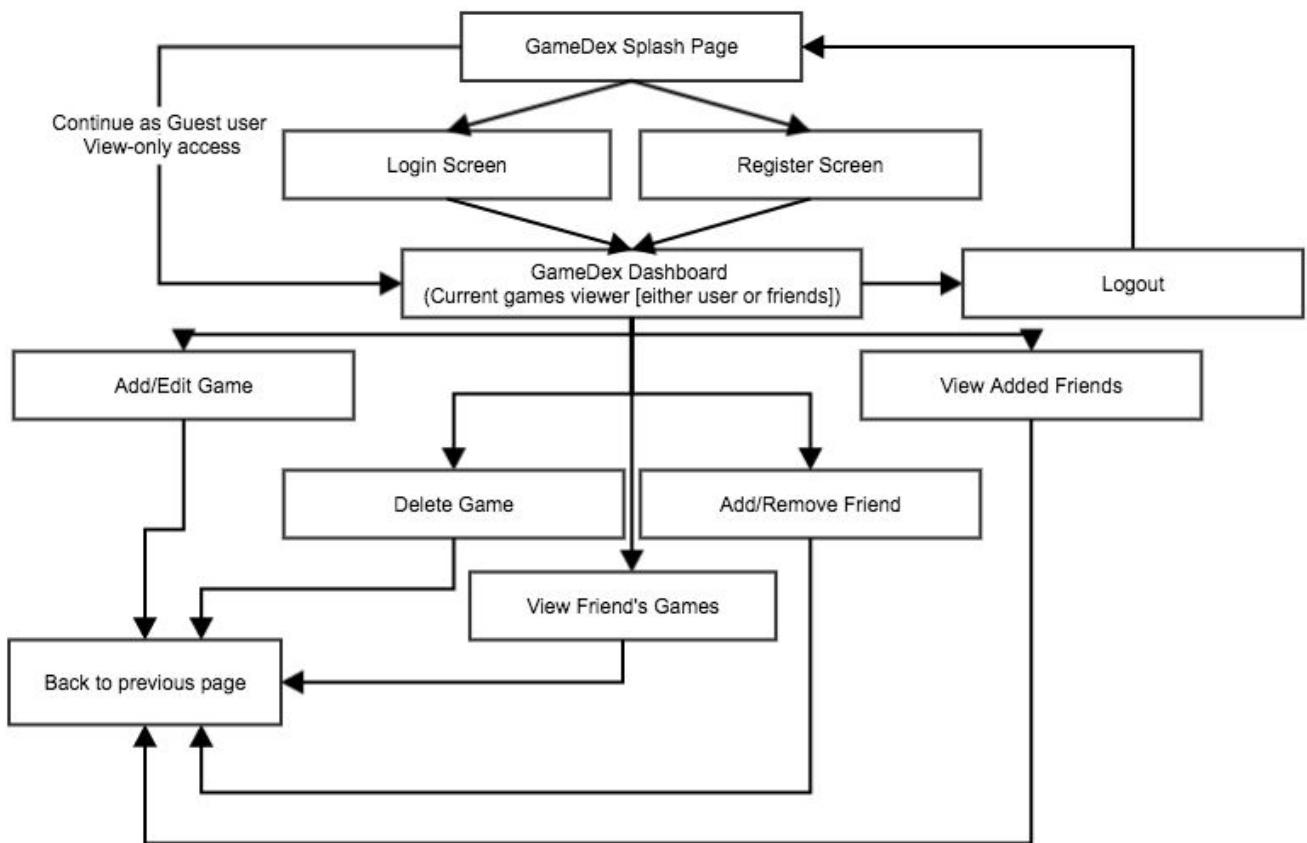
- GameDex “social” features that enable gamers to share their inventories may be out of the scope of what can be completed in this course
- GameDex lacks a data mining interface that could be used to derive statistics from the combined datasets of all the users.
- GameDex doesn’t auto-populate information for the games that the users enter; user have to submit all of the data for their games.
- GameDex is not integrated with game services and cannot auto-populate the users’ GameDex library.
- GameDex will require user registration to create a profile which may cause friction to user adoption.

## **Risks**

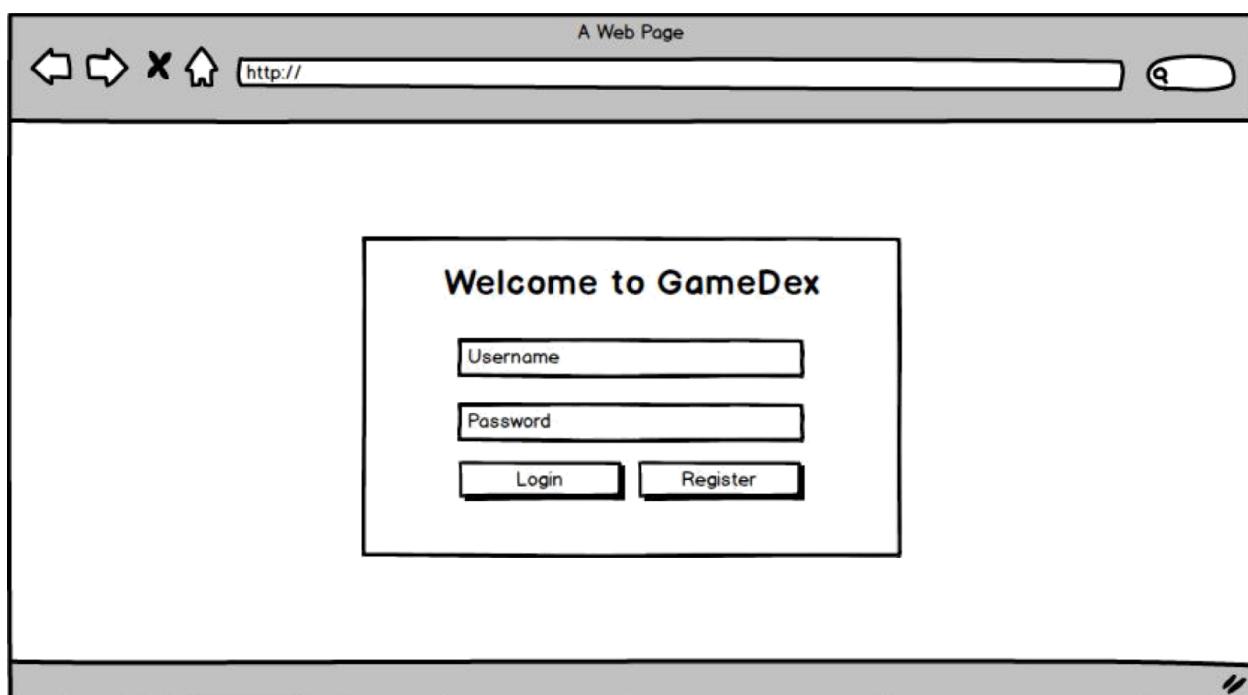
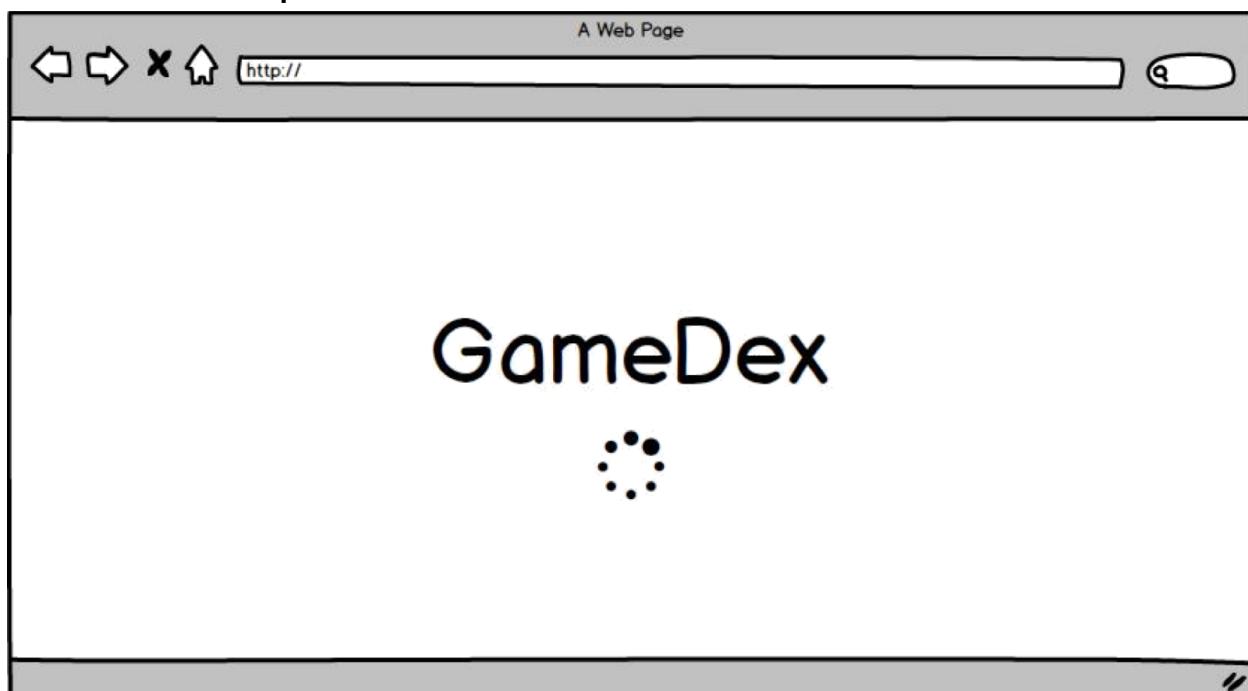
As with almost every human endeavour there will be risks. Given the specific circumstances under which GameDex will be developed we foresee the following challenges:

- Non-existent budget.
- Short development window.
- Development team has busy schedules with many potential time conflicts, especially as the quarter progresses and coursework increases.
- Limited time for in-person interaction with the development team.
- Development team has lack of experience with the tools and languages needed to write GameDex.
- Reliant on externally hosted content that is out of our control, i.e. Google Firebase.
- Moving goal posts as the teaching staff attempts to introduce obstacles to our development plans.
- Insufficient knowledge of the entire gaming universe, including, but not limited to, obscure gaming platforms, previously unknown genres, and future media types.

## User Flow Idea



## Wireframe of Concept



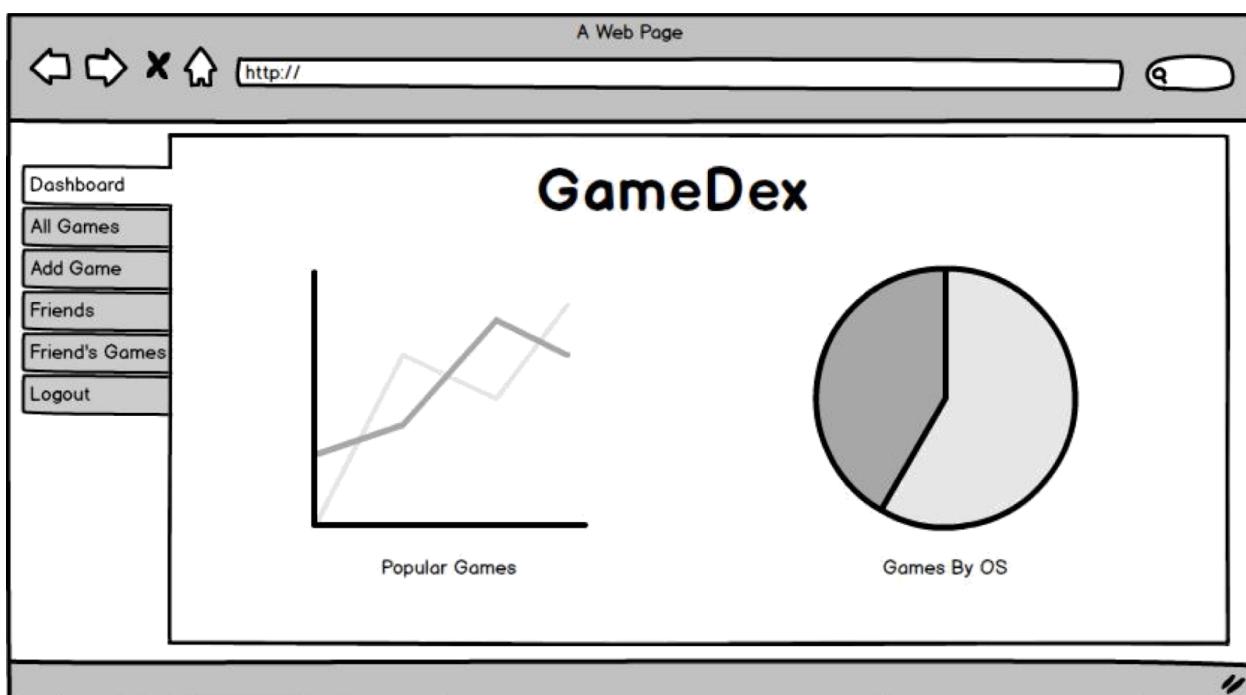
A Web Page

http://

### GameDex Registration

Username  
Password  
Confirm Password  
Display Name  
Email

Register



A Web Page

http://

Game Name	Game System	Cover Art	Genre	Edit/Delete
NFS Most Wanted	Windows		Action	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
GTA Vice City	Play Station 4		Action	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
Asphalt Xtreme	Android		Racing	<input type="button" value="Edit"/> <input type="button" value="Delete"/>

A Web Page

http://

## GameDex

Add Game

Game Information

Cover Art	<input type="button" value="Browse"/>		
Title	<input type="text"/>		
Description	<input type="text"/>		
Release Date	<input type="text"/> / <input type="button" value="Calendar"/>	Purchase Price	<input type="text"/>
Game System	<input type="button" value="Select Game System"/>	Genre	<input type="text"/>
Completed Playthrough	<input type="checkbox"/>	Still Functional	<input type="checkbox"/>
Notes	<input type="text"/>		
<input type="button" value="Submit"/> <input type="button" value="Cancel"/>			

A Web Page

http://

Dashboard

All Games

Add Game

Friends

Friend's Games

Logout

# GameDex

Add Game

Game Information

Cover Art

Title

Description

Release Date

Purchase Price

Game System

Genre

Completed Playthrough

Still Functional

Notes

A Web Page

http://

Dashboard  
All Games  
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Friend's Games  
Logout

# GameDex

My Friends

Friend	Nickname	Action
Rajshekhar	Raj	<input type="button" value="Remove"/>
Sameer	Sam	<input type="button" value="Remove"/>
Johnathan	John	<input type="button" value="Remove"/>
Donald	Danny	<input type="button" value="Remove"/>

A Web Page

http://

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# GameDex

Games Played by Danny



NFS Most Wanted

★★★★★



GTA Vice City

★★★★★



Asphalt Xtreme

★★★★★

