

# Full Stack Website Project: GamePortal

Jingyu Wang

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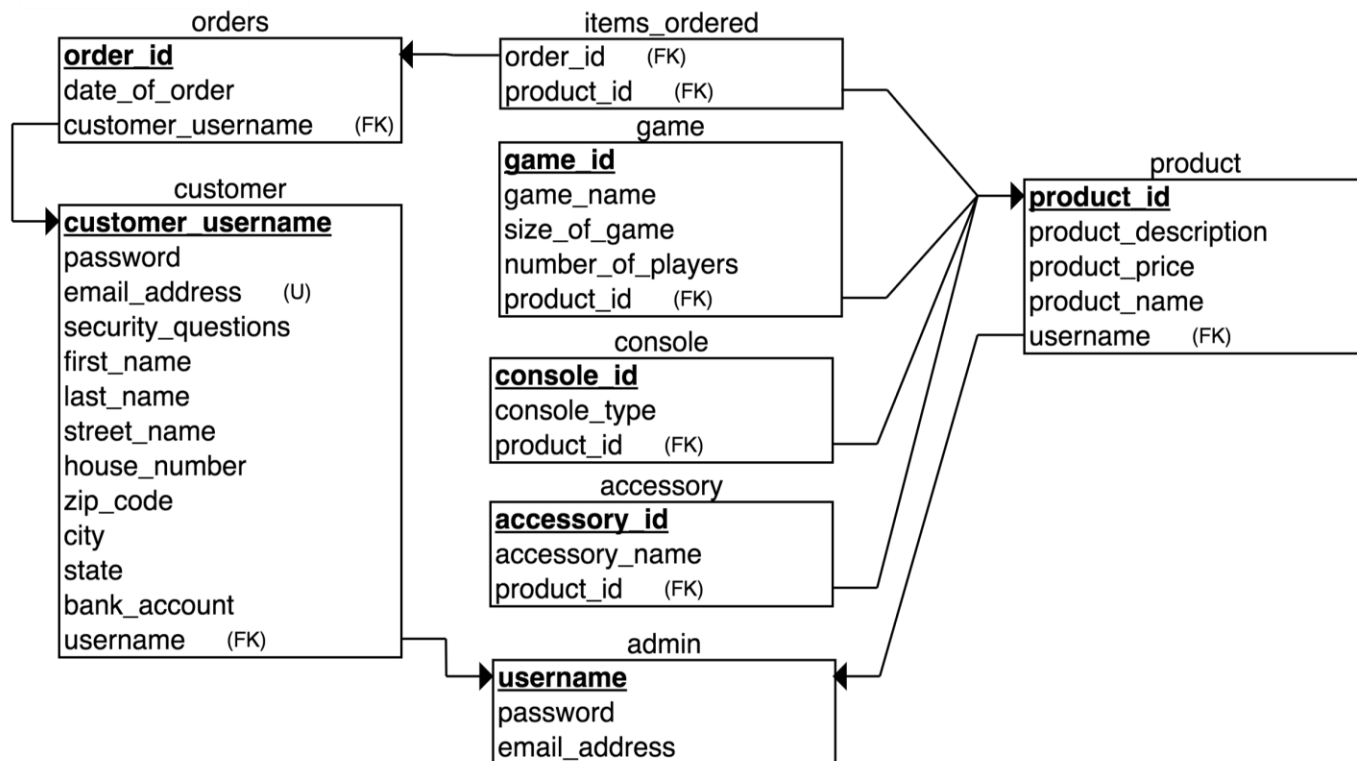
The database we have come to build, is a game store database. It is made for the gamer in us. With a wide variety of games, for a various amounts of consoles those games apply to, such as XBOX, PC or PlayStation, and a copious amount of genres that these games fall into, whether it be a simulation game, sport game, or even a strategic game; these games may apply to all the gamers, everywhere. This database is designed for a customer to sign up with his or her's unique username, unique email address followed by a password and other attributes. Admin is one who oversees all the actions being taken. Example being, an administrator may be able to add or remove a game, and also add or remove a customer. Once a customer purchases a game, they will automatically be charged the price of the product they desired to have – game, accessory, or console. The user is required to sign up for an account. The

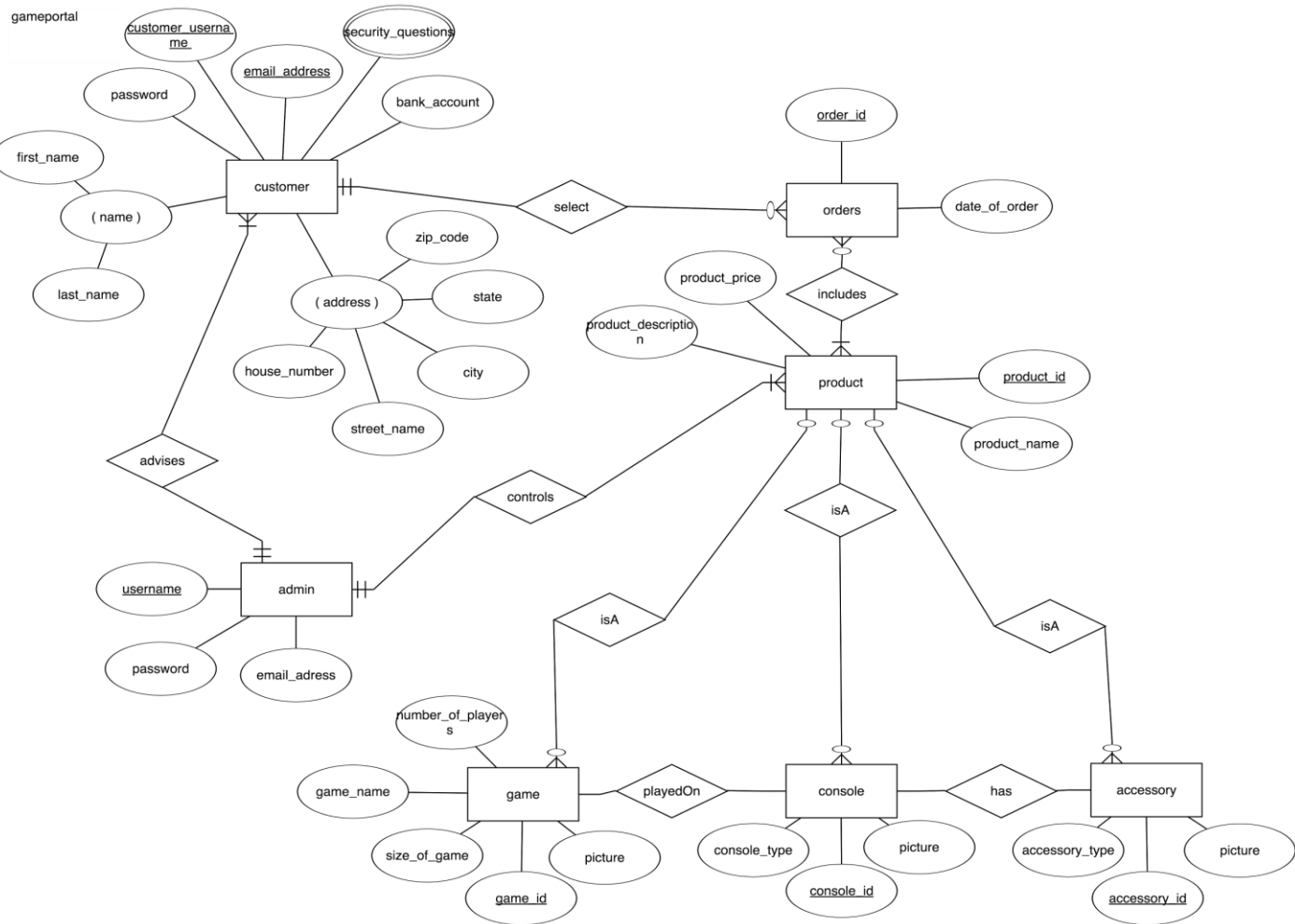
information the administrators need is the customer's name, both first and last, an address, which provides a street name, number, city, state and zip code, a unique email address is also needed as well as a unique account username. Once user is signed up, he/she may log in and will not have to sign up any more due to the customer's information is stored in the game store database. This database is designed by 8 tables: customer, orders, items\_ordered, product, admin, game, console, and accessory.

Below, you will see both the Relational Model and ERD, respectively.

The Relational Model is as followed:

gameportal





The ERD is as followed:

When it came to the Index Selection, we know that the index selection is a method in which several useful traits are selected simultaneously. We used index selection in the search part, where we created an index selection by using the name of the product to make it more convenient and efficient for the user for his or hers needs. This is an example of index selection queries that we have used in the project:

```

$index = "CREATE INDEX g_name ON game (game_name)";
$index2 = "CREATE INDEX c_type ON console (console_type)";
$index3 = "CREATE INDEX a_name ON accessory (accessory_name)";
  
```

For making the SQL for creating and populating the tables, below you will see a an example of our code pasted so you will be able to see how the code was designed as well as the links to the file with all of the code:

```

-- Table structure for table `accessory` --
CREATE TABLE `accessory` (
  `accessory_name` varchar(100) NOT NULL,
  `image_name` varchar(100) NOT NULL,
  
```

```

`image` longblob NOT NULL,
`product_id` varchar(100) NOT NULL,
`accessory_id` int(11) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;

```

Here are the links to our database to view all of our codes:

[https://github.com/hamalis/DB\\_Project](https://github.com/hamalis/DB_Project)

<https://github.com/sjuDB/hello-git-hamalis>

Below you will find screen shots of our database for your benefit:

Screenshot of GamePortal database:

The screenshot shows the phpMyAdmin interface for a database named 'gp'. The left sidebar lists various databases, including 'gp'. The main panel displays the 'Structure' tab for the 'gp' database, showing a list of tables with their respective actions, row counts, types, collations, and sizes.

Table	Action	Rows	Type	Collation	Size	Overhead
accessory	Browse Structure Search Insert Empty Drop	20	InnoDB	latin1_swedish_ci	336 K B	-
admin	Browse Structure Search Insert Empty Drop	1	InnoDB	latin1_swedish_ci	16 K B	-
console	Browse Structure Search Insert Empty Drop	16	InnoDB	latin1_swedish_ci	1.5 M B	-
customer	Browse Structure Search Insert Empty Drop	67	InnoDB	latin1_swedish_ci	16 K B	-
game	Browse Structure Search Insert Empty Drop	45	InnoDB	latin1_swedish_ci	2.6 M B	-
items_ordered	Browse Structure Search Insert Empty Drop	39	InnoDB	latin1_swedish_ci	40 K B	-
orders	Browse Structure Search Insert Empty Drop	39	InnoDB	latin1_swedish_ci	32 K B	-
product	Browse Structure Search Insert Empty Drop	64	InnoDB	latin1_swedish_ci	16 K B	-
report	Browse Structure Search Insert Empty Drop	~0	View	---	---	---
<b>9 tables</b>	<b>Sum</b>	<b>~311</b>	<b>InnoDB</b>	<b>latin1_swedish_ci</b>	<b>4.6 M B</b>	<b>0 B</b>

Below the table list, there is a 'Create table' section with a 'Name' field and a 'Number of columns' dropdown set to 4. A 'Go' button is at the bottom right of this section.

Admin table:

The screenshot shows the phpMyAdmin interface for the 'admin' table. The left sidebar lists various databases, including 'gp'. The main panel displays the 'Table: admin' view, showing a list of rows with columns 'admin\_username', 'password', and 'email'.

admin_username	password	email
admin	admin	admin@gmail.com

Below the table, there are options for 'Query results operations' including 'Print view', 'Export', 'Display chart', and 'Create view'. There is also a 'Bookmark this SQL query' section with a 'Label' field and a checkbox 'Let every user access this bookmark'.

Customer table:

Showing rows 0 - 24 (57 total, Query took 0.009 seconds.) [security\_questions: WHAT PRIMARY SCHOOL DID YOU ATTEND?... - ...]

```
SELECT * FROM 'customer' ORDER BY 'customer'.security_questions DESC
```

[ Edit inline ] [ Edit ] [ Explain SQL ] [ Create PHP code ] [ Refresh ]

Sort by key: None

	customer_username	password	email_address	security_questions	security_answer	first_name	last_name	street_name	house_number	zip_code	city	state	bank_account
<input type="checkbox"/>	ewebbz	ILLBRASa	ewebbz@amazon.com	What primary school did you attend?	alfredo school	Edward	Webb	05083 Elmside Circle	10	19172	Philadelphia	Pennsylvania	356747666805725
<input type="checkbox"/>	koliver2	123456	koliver2@mtv.com	What primary school did you attend?	ABC School	Katherine	Oliver	163 Cherokee Crossing	95	47719	Evansville	Indiana	5450548240067150
<input type="checkbox"/>	bcox1	KCBHbQzEM9	bcox1@imageshack.us	What is your grandmother's (on your mother's side)...	Beverly	Beverly	Cox	36 Summenview Point	279	81005	Pueblo	Colorado	378957468088716
<input type="checkbox"/>	lkingv	BG1qppH2o	lkingv@1688.com	What is your first car?	Camry2001	Lois	King	38 Forster Point	546	23213	Richmond	Virginia	440534589171441
<input type="checkbox"/>	james2002	123456	james@gmail.com	What is your first car?	123456	James	Mills	179 Addison Road	22	32533	Cantonment	FL	123456789
<input type="checkbox"/>	jbell9	dSag1ZPW10Q0	jbell9@storify.com	What is your favort teacher?	Bob	Jacqueline	Bell	06 Holy Cross Court	73	19104	Philadelphia	Pennsylvania	5221573447384890
<input type="checkbox"/>	jingyu	123321	jw652401@sju.edu	What is your favort teacher?	krueger	Jingyu	Wang	3901 consihocken ave	1111	19131	philadelphia	PA	111111111
<input type="checkbox"/>	brnguyen0	123456	brnguyen0@sourceforge.net	What is your favort music?	Panda	Bruce	Nguyen	99765 Kennedy Avenue	506	34102	Naples	Florida	30170573347288
<input type="checkbox"/>	salman89	123456	salman@yahoo.com	What is your favort music?	Panda	Salman	Hassan	3901 Consihocken Avenue	101	19131	Philadelphia	PA	22222222
<input type="checkbox"/>	mohammed119	123456	m119@gmail.com	What is your favort music?	Panda	Ali	Muhammed	1148 bcd	4444	19161	NY	NY	11111111
<input type="checkbox"/>	rcookw	trRpY6x	rcookw@arstechnica.com	In what town or city did you meet your spouse/part...	Philly	Roy	Cook	9112 Maple Junction	178	10474	Bronx	New York	3557278680571463
<input type="checkbox"/>	awalker1	123456	awalker1@imdo.com	In what town or city	NY	Antonio	Walker	8 Randv Point	499	95205	Stockton	California	5476418552419129

## Product table:

Showing rows 0 - 24 (84 total, Query took 0.0005 seconds.)

```
SELECT * FROM 'products'
```

[ Edit inline ] [ Edit ] [ Explain SQL ] [ Create PHP code ] [ Refresh ]

Sort by key: None

	product_id	product_description	product_name	product_price
<input type="checkbox"/>	360BUNDLEORIGINAL	Console	Xbox 360 Bundle	79.99
<input type="checkbox"/>	ACIII360	Game	Assassins III	4.99
<input type="checkbox"/>	AFLVL3	Accessory	Afterglow LVL 3 Headset	29.99
<input type="checkbox"/>	B1	Game	Battlefield 1	59.99
<input type="checkbox"/>	B1PC	Game	Battlefield 1	59.99
<input type="checkbox"/>	B1XBOX	Game	Battlefield 1	59.99
<input type="checkbox"/>	BATPS3	Game	Batman	19.99
<input type="checkbox"/>	BO3360	Game	Black Ops III	19.99
<input type="checkbox"/>	CASCP54	Accessory	Charge and Sync Cable	14.99
<input type="checkbox"/>	CHBPS4	Accessory	Charge Block for PS4	24.99
<input type="checkbox"/>	CODG360	Game	Call of Duty	4.99
<input type="checkbox"/>	CODGH060	Accessory	Call of Duty: Ghosts Headset	74.97
<input type="checkbox"/>	CODXBOXW	Game	Call of Duty	79.99
<input type="checkbox"/>	D2PC	Game	Dishonored 2	59.99
<input type="checkbox"/>	DISXBOX	Game	Dishonored 2	34.99
<input type="checkbox"/>	DLP54	Game	Dying Light	19.99
<input type="checkbox"/>	DSIIP54	Game	Dark Souls III	39.99
<input type="checkbox"/>	ELITECHARGE	Accessory	Elite Charge Pad for PS4	179.99

## Game table:

phpMyAdmin

Recent Favorites

New

- cars
- classicmodels
- csv\_db
- flights
- google
- gp
  - Tables
    - New
    - accessory
    - admin
    - console
    - customer
    - game
    - items\_ordered
    - orders
    - product
  - Views
  - hw2
  - information\_schema
  - itunes
  - lab3
  - lab4
  - mysql
  - performance\_schema
  - phpmyadmin
  - test
  - world

Showing rows 0 - 24 (45 total, Query took 0.0156 seconds) [game\_id 4... - 31...]

SELECT \* FROM `game` ORDER BY `game\_id` ASC

[ Edit inline ] [ Edit ] [ Explain SQL ] [ Create PHP code ] [ Refresh ]

1 > >> Show all Number of rows: 25 Filter rows: Search this table

Sort by key: PRIMARY (Ascending)

Options

	game_name	size_of_game	number_of_players	image_name	image	platform	product_id	game_id
<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	The Walking Dead	50 GB	Single Player	[BLOB - 18.3 KiB]	PS3	WDPS3	4
<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	Minecraft	45 GB	Multiplayers	[BLOB - 33.1 KiB]	PS3	MINCRAFTPS3	5
<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	WWE 2K17	70 GB	Multiplayer	[BLOB - 37.7 KiB]	PS3	WWE17	7
<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	FIFA 17	66 GB	Multiplayers	[BLOB - 27.1 KiB]	PS3	FIFA17PS3	8
<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	NBA 2K17	60 GB	Multiplayers	[BLOB - 28.6 KiB]	PS3	NBA17PS3	9
<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	Battlefield 1	105 GB	Multiplayers	[BLOB - 30.9 KiB]	PC	B1PC	10
<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	Overwatch	95 GB	Multiplayers	[BLOB - 66.9 KiB]	PC	OWPC	11
<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	Titanfall 2	150 GB	Multiplayers	[BLOB - 30.9 KiB]	PC	TIT2PC	12
<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	The Sims 4	45 GB	Multiplayer	[BLOB - 36.4 KiB]	PC	Sims4PC	14
<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	Grand Theft Auto V	200 GB	Multiplayer	[BLOB - 39 KiB]	PC	GTAIVPC	15
<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	Skylanders	45 GB	singleplayer	[BLOB - 17.5 KiB]	PS3	SCBPS3	16
<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	Mass Effect Trilogy	66 GB	Multiplayer	[BLOB - 19.1 KiB]	PC	METPC	17
<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	Dishonored 2	90 GB	Singleplayer	[BLOB - 10.6 KiB]	PC	D2PC	18
<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	Red Dead Redemption 2	97 GB	Singleplayer	[BLOB - 19.9 KiB]	PS4	RDR2PS4	19
<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	Rise of the Tomb Raider	98 GB	Singleplayer	[BLOB - 25 KiB]	PC	RTRPC	20
<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	Skynim	100 Gb	Singleplayer	[BLOB - 20.2 KiB]	XBOX ONE	SSPIBOX	21
<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	Battlefield 1	90 GB	Multiplayer	[BLOB - 29.5 KiB]	XBOX ONE	B1XBOX	22

## Console table:

phpMyAdmin

Recent Favorites

New

- cars
- classicmodels
- csv\_db
- flights
- google
- gp
  - Tables
    - New
    - accessory
    - admin
    - console
    - customer
    - game
    - items\_ordered
    - orders
    - product
  - Views
  - hw2
  - information\_schema
  - itunes
  - lab3
  - lab4
  - mysql
  - performance\_schema
  - phpmyadmin
  - test
  - world

Showing rows 0 - 20 (21 total, Query took 0.0113 seconds)

SELECT \* FROM `console`

[ Edit inline ] [ Edit ] [ Explain SQL ] [ Create PHP code ] [ Refresh ]

Show all Number of rows: 25 Filter rows: Search this table

Sort by key: None

Options

	console_type	image_name	image	product_id	console_id
<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	Gears Of War 4 Bundle	[BLOB - 45.2 KiB]	GOW4XBOX	1
<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	PS4 Watch Dogs 2	[BLOB - 204.7 KiB]	PS4WD2	2
<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	Quantum Break Edition	[BLOB - 138 KiB]	XBOX1QB	3
<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	PS4 Mega Bundle	[BLOB - 140.6 KiB]	PS4Mega	4
<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	Xbox One S Battlefield 1	[BLOB - 11.1 KiB]	XBOXB11TB	5
<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	PlayStation 4 Pro 1TB	[BLOB - 4.5 KiB]	PS4ProBlack1	6
<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	Wii U Bundle	[BLOB - 30.3 KiB]	WII2PB	7
<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	Madden 16 Bundle	[BLOB - 81.1 KiB]	M16Bundle	8
<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	PS3 GTA Bundle	[BLOB - 21.9 KiB]	PS3GTA	9
<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	PS3 320GB Bundle	[BLOB - 82.1 KiB]	PS3PASTBUNDLE	10
<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	PS3 Killzone3 Bundle	[BLOB - 14 KiB]	PS3KILL3	11
<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	PS4 Uncharted4	[BLOB - 7.6 KiB]	PS4U4	12
<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	Xbox 360 Bundle	[BLOB - 72.3 KiB]	360BUNDLEORIGINAL	13
<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	Xbox 360 New	[BLOB - 82 KiB]	NEWBUNDLE	14
<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	Wii Skylanders	[BLOB - 25 KiB]	SKWII	15
<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	Wii Mario Kart	[BLOB - 20.3 KiB]	WIIWK	16
<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Copy</a> <a href="#">Delete</a>	Xbox One S Minecraft	[BLOB - 16.8 KiB]	XBOXMINECRAFT500GB	17

## Accessory table:

phpMyAdmin

Recent Favorites

Showing rows 0 - 19 (20 total, Query took 0.0087 seconds) [accessory\_id 21... - 1...]

SELECT \* FROM `accessory` ORDER BY `accessory\_id` DESC

[ Edit inline ] [ Edit ] [ Explain SQL ] [ Create PHP code ] [ Refresh ]

Show all Number of rows: 25 Filter rows: Search this table

Sort by key: PRIMARY (Descending)

Options	accessory_name	image_name	image	product_id	accessory_id
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	Charge and Sync Cable		[BLOB - 39.4 KiB]	CASCPS4	21
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	Charge Block for PS4		[BLOB - 9.7 KiB]	CHBPS4	20
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	2TB HDD for Xbox One		[BLOB - 13.4 KiB]	HDDXBONE2TB	19
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	LS30 Gaming Headset		[BLOB - 10.3 KiB]	LS30CHPS4	18
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	Elgato Game Capture HD60		[BLOB - 5.5 KiB]	ELGCHD60	17
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	HTC Vive		[BLOB - 9.7 KiB]	HTCVIVE	16
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	Steam Controller		[BLOB - 4.3 KiB]	STEAMC	15
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	Kinect Xbox One		[BLOB - 4.2 KiB]	KXBONE	14
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	Call of Duty: Ghosts Headset		[BLOB - 13.8 KiB]	CODGH08	13
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	Afterglow LVL3 Headset		[BLOB - 13.5 KiB]	AFLVL3	12
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	PlayStation Camera		[BLOB - 15.7 KiB]	PLAYCAMERAPS4	11
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	Xbox 360 Rechargeable Battery		[BLOB - 5.3 KiB]	XB360RB	10
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	Xbox One Lunar White Controller		[BLOB - 7.2 KiB]	XLWC2016	9
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	PlayStation Move		[BLOB - 20.1 KiB]	PLAYMOVE2016	8
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	PlayStation VR		[BLOB - 13.3 KiB]	PLAYSVR2016	7
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	Xbox One Kinect Adapter		[BLOB - 5.9 KiB]	XBOKA2016	6
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	DualShock 4 Controller - Gold		[BLOB - 7.7 KiB]	PS4CONTG	5
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	PlayStation Move Motion Controller		[BLOB - 16.7 KiB]	PLAYMOVE2016	4

## Orders table:

phpMyAdmin

Recent Favorites

Showing rows 0 - 24 (25 total, Query took 0.0009 seconds) [order\_id 39... - 15...]

SELECT \* FROM `orders` ORDER BY `order\_id` DESC

[ Edit inline ] [ Edit ] [ Explain SQL ] [ Create PHP code ] [ Refresh ]

Show all Number of rows: 25 Filter rows: Search this table

Sort by key: PRIMARY (Descending)

Options	order_id	date_of_order	customer_username
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	39	2016-12-02	salman89
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	38	2016-11-30	awalker1
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	37	2016-11-30	awalker1
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	36	2016-11-27	mohammed119
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	35	2016-11-21	mohammed119
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	34	2016-11-21	james2002
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	33	2016-11-21	james2002
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	32	2016-11-21	james2002
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	31	2016-11-21	james2002
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	30	2016-11-21	james2002
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	29	2016-11-21	james2002
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	28	2016-11-21	james2002
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	27	2016-11-21	james2002
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	26	2016-11-21	james2002
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	25	2016-11-21	james2002
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	24	2016-11-21	james2002
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	23	2016-11-21	james2002

## Items ordered table:

Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Showing rows 0 - 24 (39 total, Query took 0.0013 seconds)

```
SELECT * FROM `items_ordered`
```

Sort by key: None

product_id	order_id
overwatch101	1
XBOXIGOWACONTR	2
XBOXIGOWACONTR	3
B1	4
B1	5
GOW4WD2	6
GOW4WD2	7
B1	8
RDR2	9
RDR2	10
PS4WD2	11
PS4WD2	12
PS4WD2	13
PS4WD2	14
PS4WD2	15
PS4WD2	16
PS4WD2	17
PS4WD2	18
PS4WD2	19
PS4WD2	20
PS4WD2	21
PS4WD2	22

## Report view table:

Current selection does not contain a unique column. Grid edit, Edit, Copy and Delete features may result in undesired behavior.

Showing rows 0 - 24 (Query took 0.0042 seconds)

```
SELECT * FROM `report`
```

	customer_username	name	address	product_name	product_id	order_id	date of order
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	salman89	Salman Hassan	3901 Conshohocken Avenue Apt/House: 101 15131 Phil...	NFL Controller for Xbox One	NFLCONT	39	2016-12-02
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	awalker1	Antonio Walker	8 Randy Point Apt/House: 499 95205 Stockton,Califo...	STAR WARS	SWP4	38	2016-11-30
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	awalker1	Antonio Walker	8 Randy Point Apt/House: 499 95205 Stockton,Califo...	Wii Mario Kart	WIMK	37	2016-11-30
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	mohammed119	Ali Mohammed	1148 bcd Apt/House: 4444 19161 NY/NY	DualShock 4 Controller - Gold	PSACONTG	36	2016-11-27
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	mohammed119	Ali Mohammed	1148 bcd Apt/House: 4444 19161 NY/NY	NFL Controller for Xbox One	NFLCONT	35	2016-11-21
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	james2002	James Mills	179 Addison Road Apt/House: 22 32533 Cantonment.F...	PS4 Watch Dogs 2	PS4WD2	34	2016-11-21
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	james2002	James Mills	179 Addison Road Apt/House: 22 32533 Cantonment.F...	PS4 Watch Dogs 2	PS4WD2	33	2016-11-21
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	james2002	James Mills	179 Addison Road Apt/House: 22 32533 Cantonment.F...	PS4 Watch Dogs 2	PS4WD2	32	2016-11-21
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	james2002	James Mills	179 Addison Road Apt/House: 22 32533 Cantonment.F...	PS4 Watch Dogs 2	PS4WD2	31	2016-11-21
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	james2002	James Mills	179 Addison Road Apt/House: 22 32533 Cantonment.F...	PS4 Watch Dogs 2	PS4WD2	30	2016-11-21
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	james2002	James Mills	179 Addison Road Apt/House: 22 32533 Cantonment.F...	PS4 Watch Dogs 2	PS4WD2	29	2016-11-21
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	james2002	James Mills	179 Addison Road Apt/House: 22 32533 Cantonment.F...	PS4 Watch Dogs 2	PS4WD2	28	2016-11-21
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	james2002	James Mills	179 Addison Road Apt/House: 22 32533 Cantonment.F...	PS4 Watch Dogs 2	PS4WD2	27	2016-11-21
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	james2002	James Mills	179 Addison Road Apt/House: 22 32533 Cantonment.F...	PS4 Watch Dogs 2	PS4WD2	26	2016-11-21
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	james2002	James Mills	179 Addison Road Apt/House: 22 32533 Cantonment.F...	PS4 Watch Dogs 2	PS4WD2	25	2016-11-21
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	james2002	James Mills	179 Addison Road Apt/House: 22 32533 Cantonment.F...	PS4 Watch Dogs 2	PS4WD2	24	2016-11-21
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	james2002	James Mills	179 Addison Road Apt/House: 22 32533 Cantonment.F...	PS4 Watch Dogs 2	PS4WD2	23	2016-11-21

In the beginning, we anticipated for the application to be used as if it were an online game store, where a user can buy a game whenever he/she wants to. This drove us to expand our initial idea from just games to consoles, and also, accessories. We have designed the most convenient and quickest way to be a gamer. We deliver a product once the user purchases the item. We are super convenient, whereas, a user does not have to go anywhere to get whatever they need to in order to improve their gaming experience, but only has to go online to satisfy his or her needs for their entertainment purposes. We have initially wanted an online game store to be used to just play PC games and from there, we wanted to



increase our demographic by selling other console games, such as XBOX, PlayStation and Nintendo. This thought process expanded to us developing a database for gamers that we can sell not only games but also, other products that will help a user play a game; such as, a power wire for the console, a controller, a headset and other accessories.

Below you will see the interface of our database.

HomePage:

Main All Games New Games Consoles Accessories

Search GO

SIGN IN

CREATE ACCOUNT

Forgot Password?

#### Editor's Pick



**FIFA 17**  
The journey will pull you through a true-to-life experience in the Premier League.



**OVERWATCH**  
Overwatch ended the crisis, and helped maintain peace in the decades that followed, inspiring an era of exploration, innovation, and discovery.



**Red Dead Redemption 2**  
Listen to me. When the time comes, you gotta run and don't look back. This is over."

VIEW ALL

#### Coming Soon



**PS4 FINAL FANTASY XV**  
PlayStation 4 Slim 1TB FINAL FANTASY XV Limited Edition



**Sniper Ghost Warrior 3**  
Sniper Ghost Warrior 3 Limited Edition. Pre-order Sniper receive the single player campaign "The Escape of Lydia" and two unique weapons skins.



**Dead Rising 4**  
The ultimate zombie slayer returns home for the holidays! Frank West returns in an all-new chapter of one of the most popular zombie game franchises of all time.

#### Latest News

##### Uncharted 4 Co-Op Mode Revealed With New Trailer

November 21, 2016  
As part of Naughty Dog's ongoing support for Uncharted 4, the developer today announced the game's next feature: co-op. Uncharted 4: Survival, as it's called, is a new wave-based mode where you and up to two others can fight off waves of increasingly difficult enemies. This can also be played solo.

##### Resident Evil 7's \$180 CE Comes With Creepy Music Box, Severed Finger USB Drive

November 21, 2016  
Resident Evil 7 is getting a GameStop-exclusive collector's edition--and it looks pretty cool. The centerpiece of the \$180 bundle is a 8-inch tall Mansion Music Box that plays a sample of the game's theme song, "Aunt Remy." There are LED effects that are synced up with the music.

##### Sony Confirms Black Friday PSN Sale With a Bizarre Video

November 19, 2016  
Deals will start on Thursday, at least in Europe. That Sony will offer Black Friday deals on the PlayStation Store this year should come as no real surprise. The way in which it shared that news, though, is a bit odd.

##### Xbox Live's Black Friday Sale Begins Tomorrow, Offers 250+ Plus Deals

November 17, 2016  
The Xbox Store's Black Friday sale kicks off tomorrow, November 18, a full week before the real Black Friday, on November 25. Microsoft still hasn't released a full list of the deals for its Black Friday sale, but the company has now put out a new video that teases what to expect from the sale.



**COD INFINITE WARFARE**

★★★★★ 1456 VOTES

Arm yourself with key knowledge about the latest Call of Duty experience - advanced campaign modes, multiplayer tips, zombies survival tricks and fresh details on Jackal Assault VR Experience!

#### New Consoles

VIEW ALL



Xbox 360 with Kinect



Nintendo 3DS XL



Xbox One S Deep Blue

#### New Accessory

VIEW ALL



Charge and Sync Cable

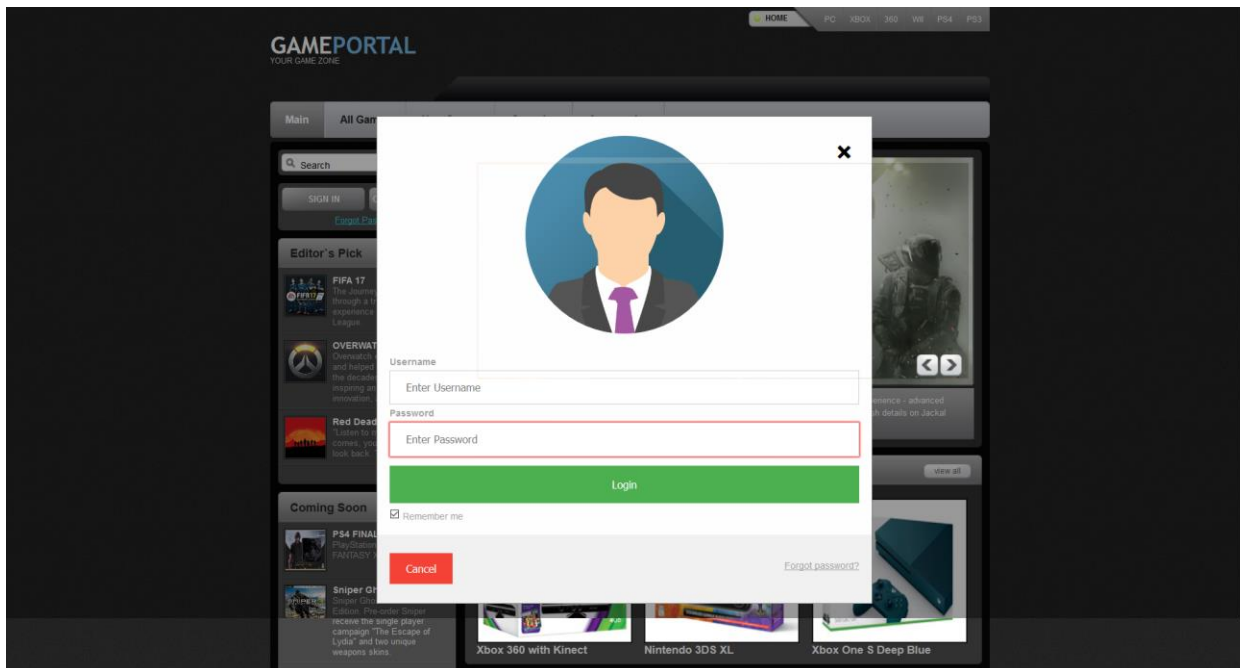


Charge Block for PS4



2TB HDD for Xbox One

Login form:



GAMEPORTAL  
YOUR GAME ZONE

HOME PC XBOX 360 WII PS4 PS3

COMMUNITY FORUM VIDEO CHEATS FEATURES DOWNLOADS SPORTS TECH

Review All Games New Games Consoles Accessories

### New Member Sign Up

First Name

Last Name

Username

Email

Password

Address

Street Name

House/Apartment Number

Zip Code

City

State

Security Question

Answer

Bank Account

Cancel Submit

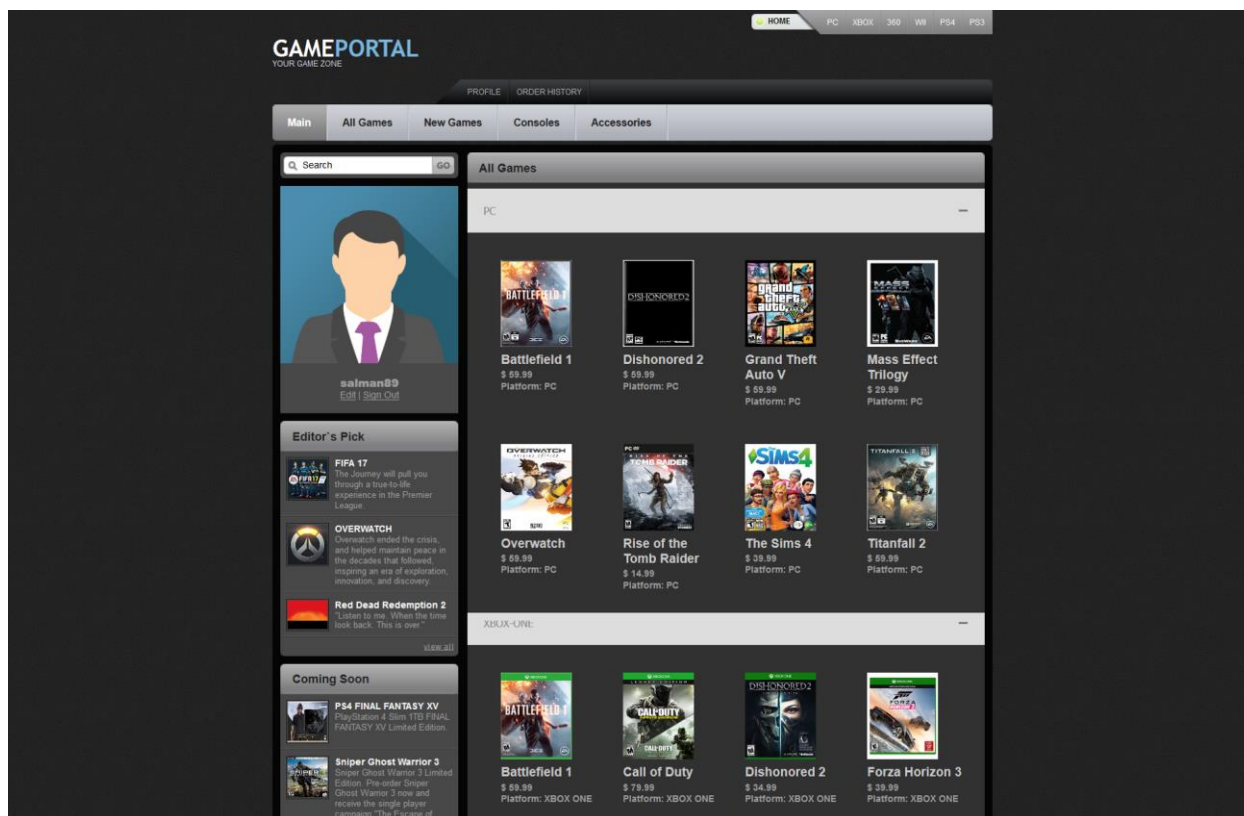
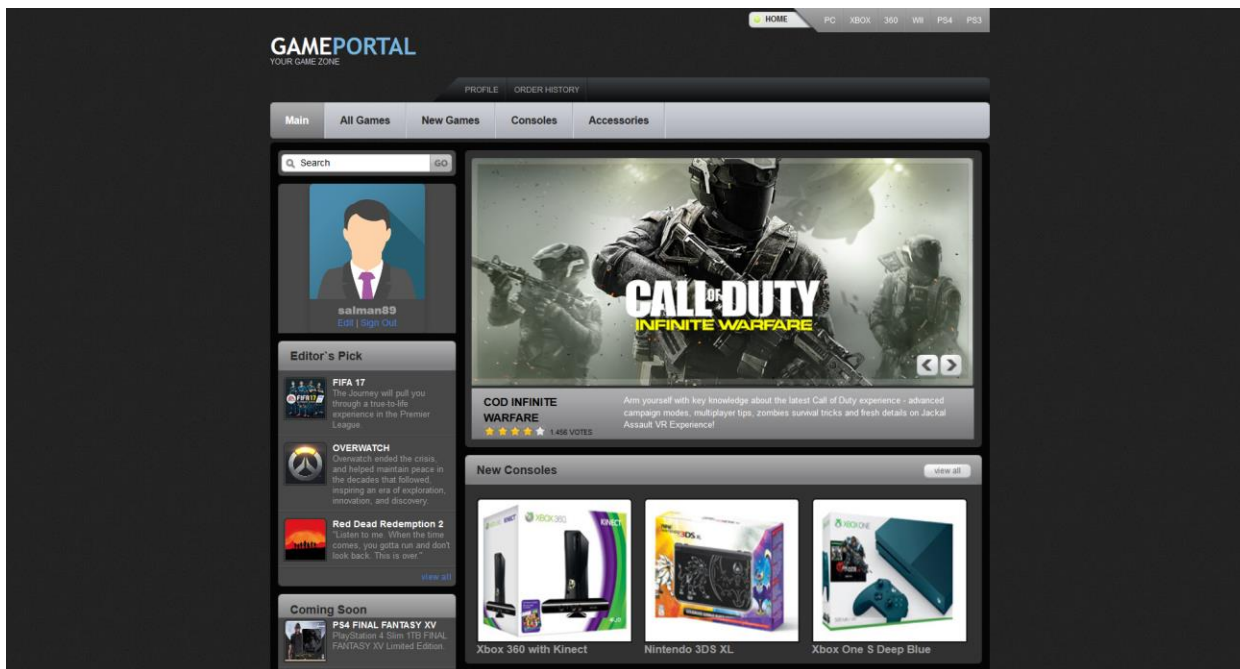
COMMUNITY FORUM VIDEO CHEATS FEATURES DOWNLOADS SPORTS TECH

PC XBOX 360 WII PS4 PS3

© GAMEPORTAL.COM DESIGNED BY MALIK ANTHONY DOUNG

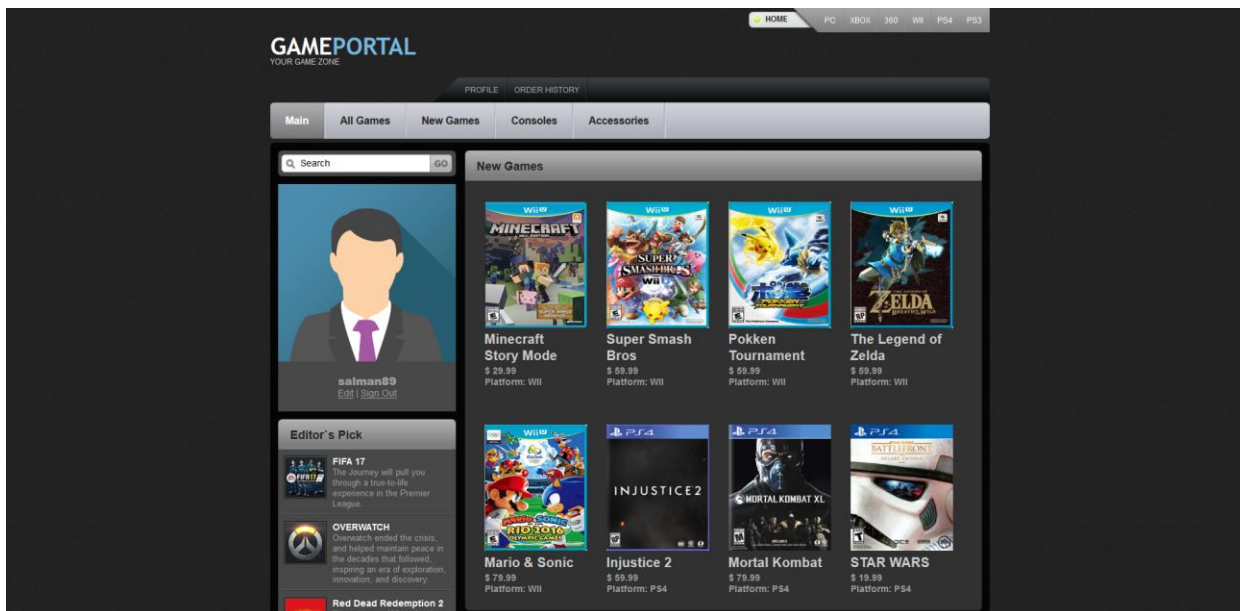
Signup form:

User Logged in page:

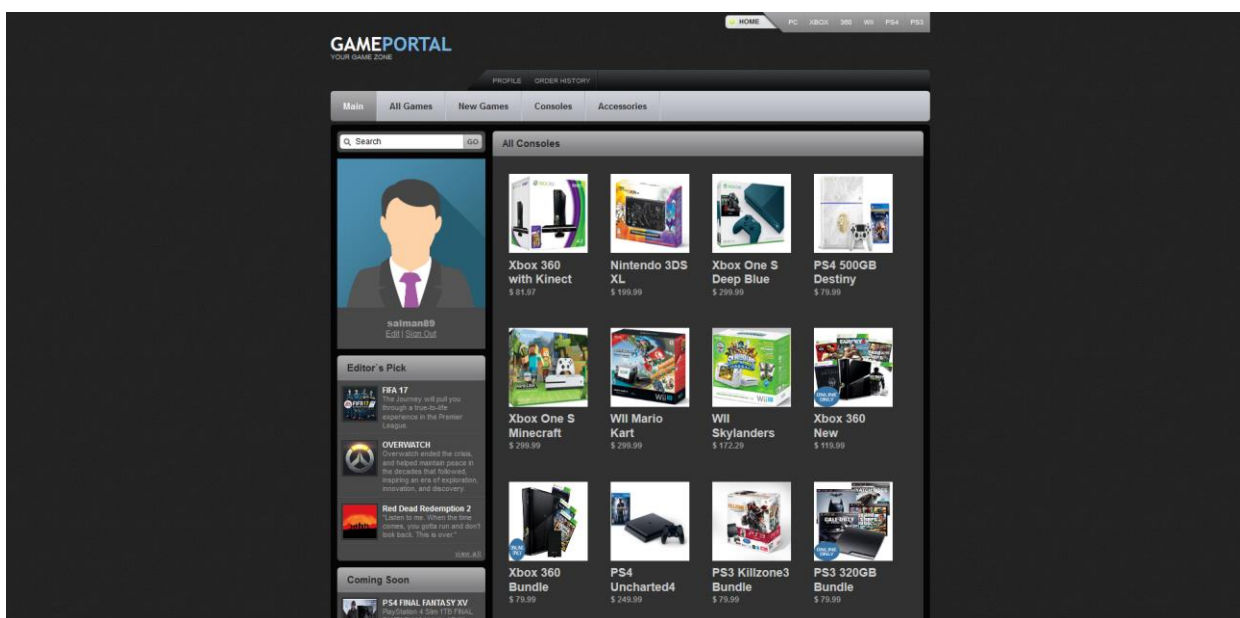


Page that shows all games for all types:

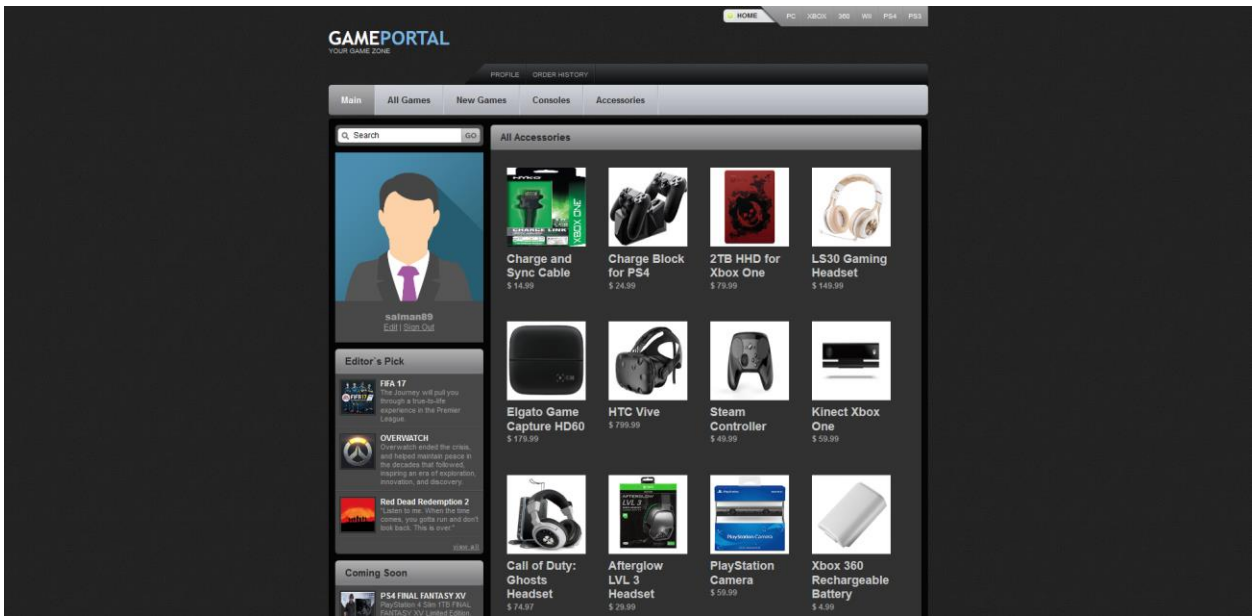
Page that shows new games only:



Page that shows all consoles:



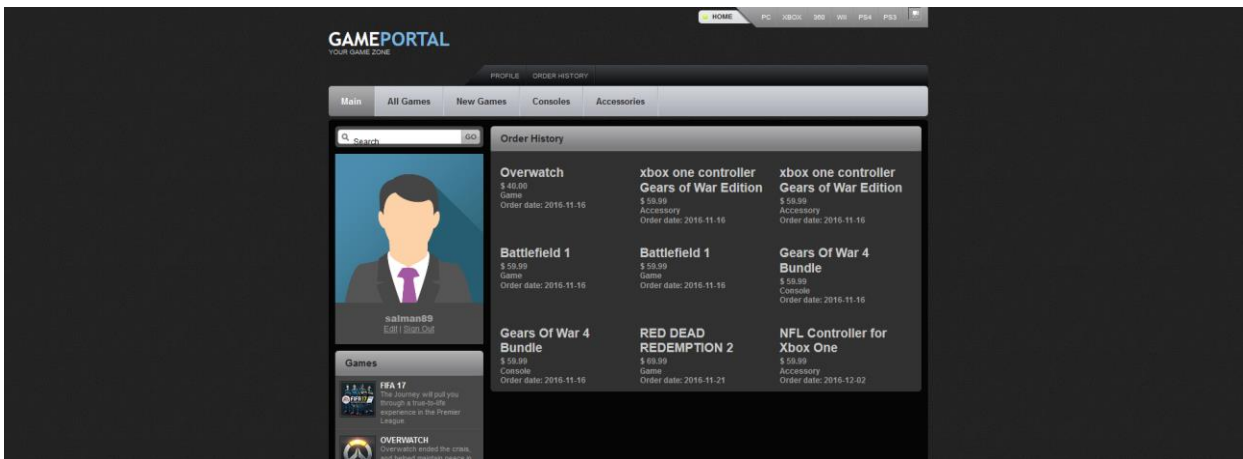
Page that shows all accessories:



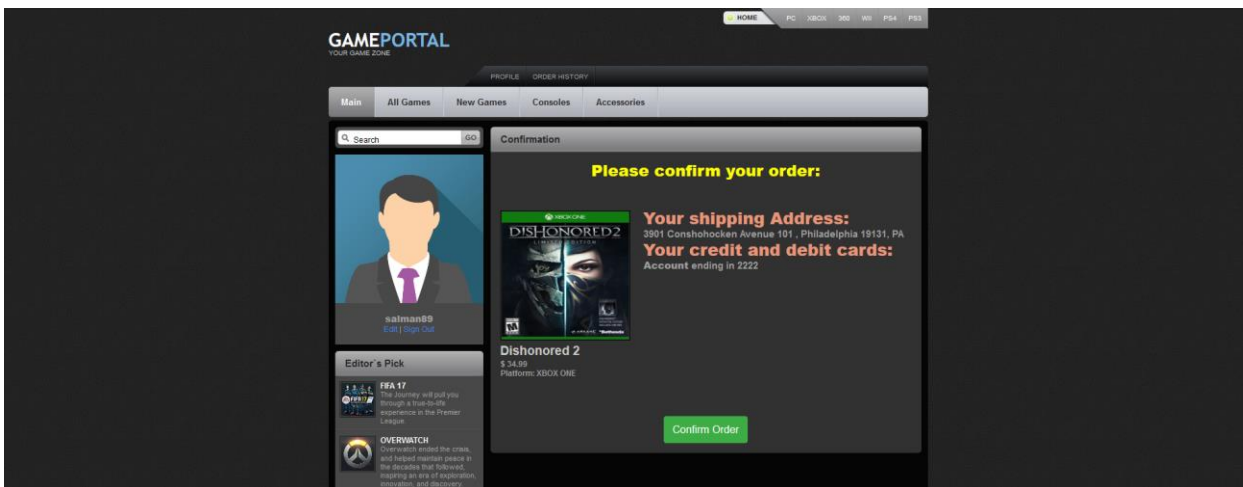
Edit customer profile page:

The screenshot shows the 'Edit customer profile' page for user 'salman89'. The page has a dark theme with white text and form fields. The title 'salman89's Profile' is centered at the top of the form area. The form is organized into several sections: Personal Information (First Name, Last Name, Username, Email, Password), Address (Street Name, House/Apartment Number, Zip Code, City, State), Security Question (with a dropdown menu and an answer field), and Bank Account (with a text field). At the bottom of the form are 'Cancel' and 'Submit' buttons. The navigation bar at the top is identical to the previous screenshot, showing 'HOME' and platform links.

Customer orders history:

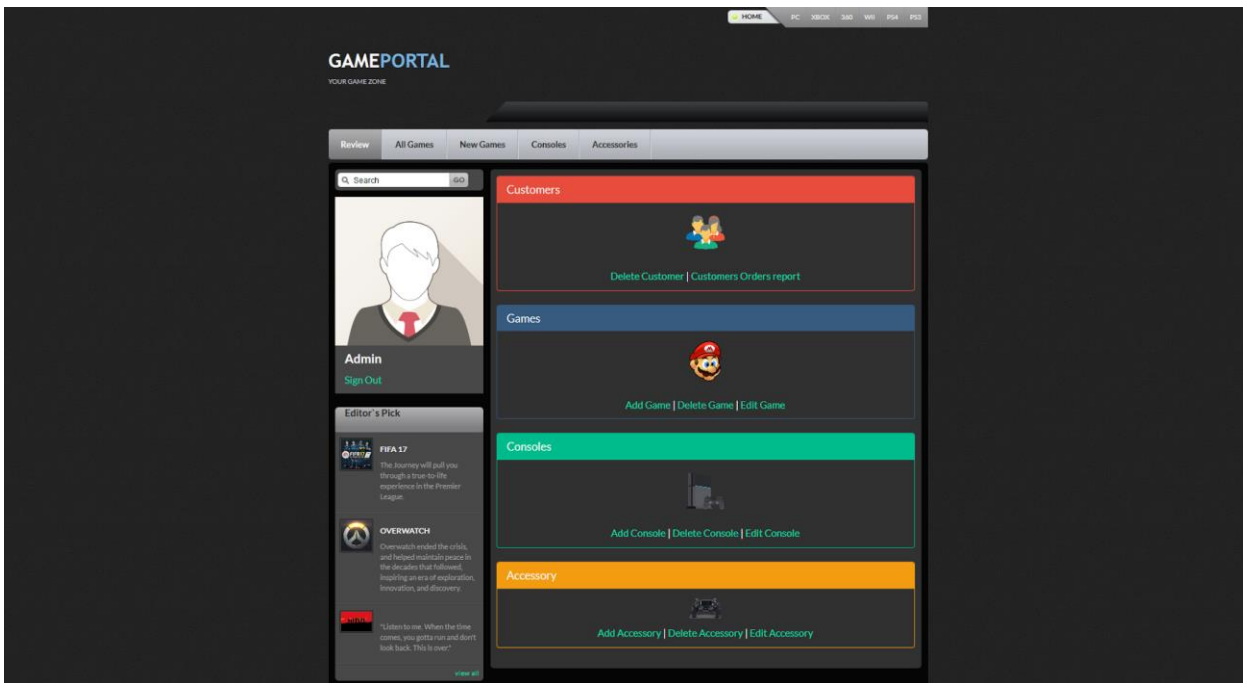


Customer confirm order page:

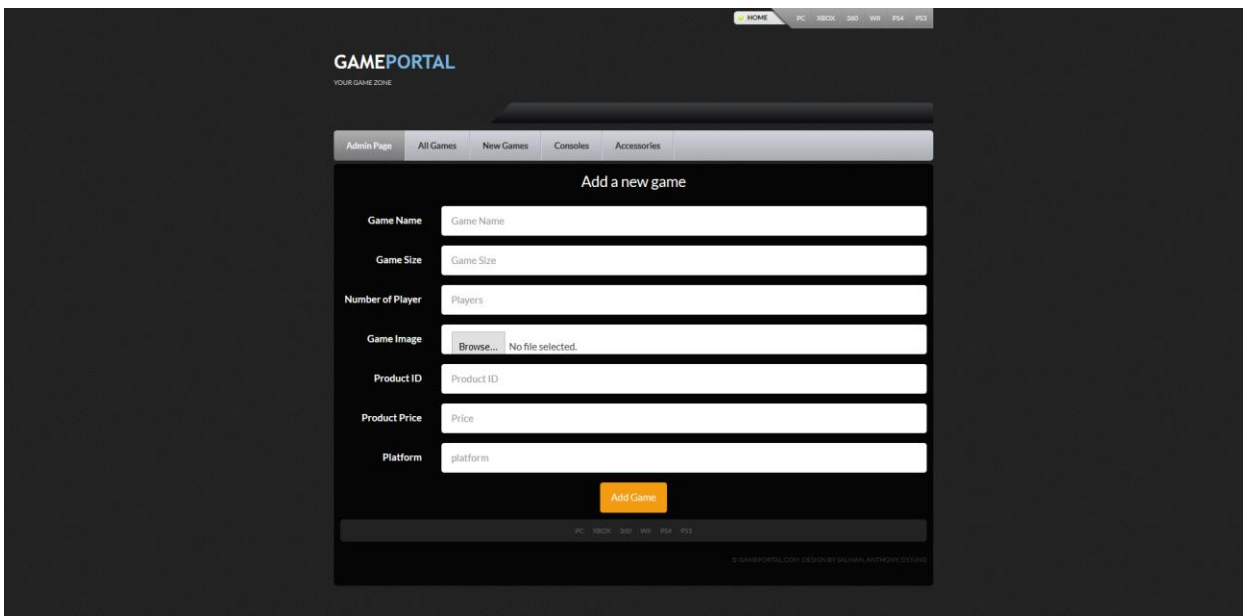


Admin homepage:



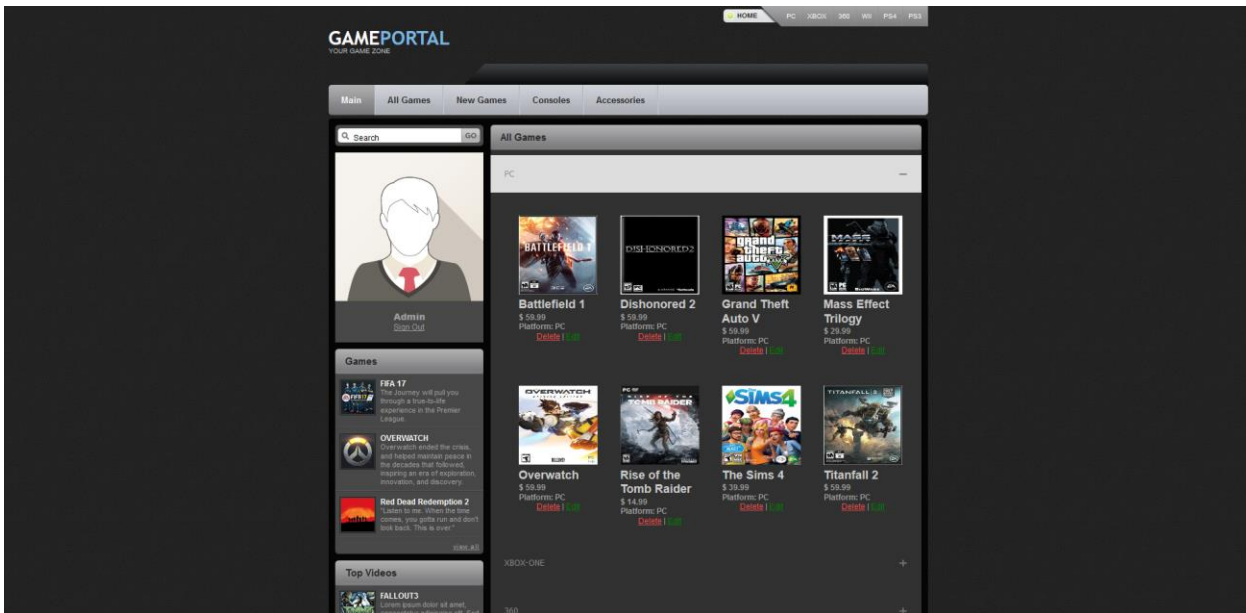


Add game page:

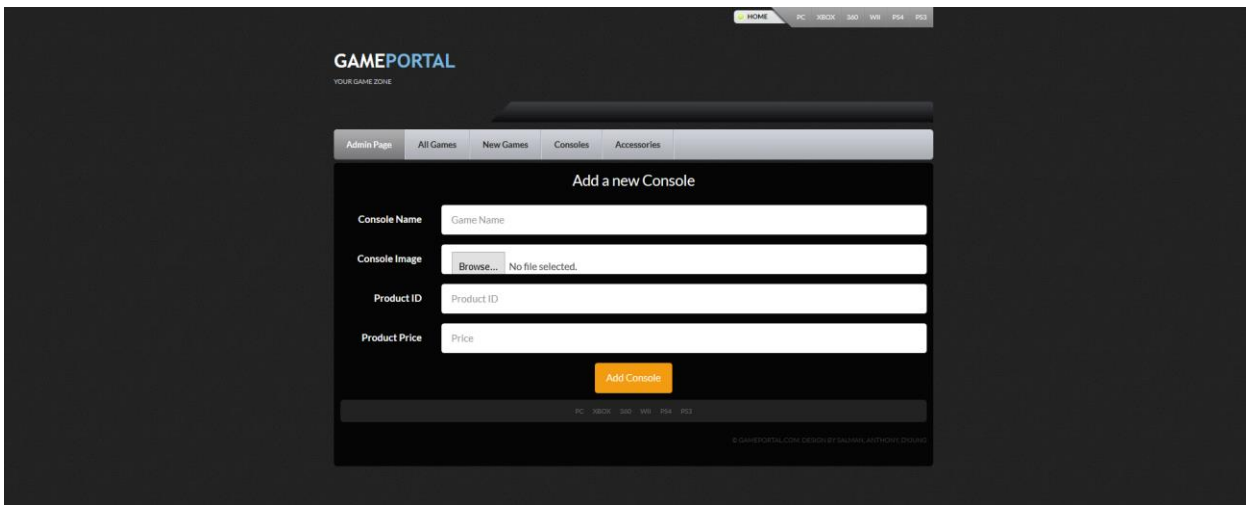


Edit/Delete games page:

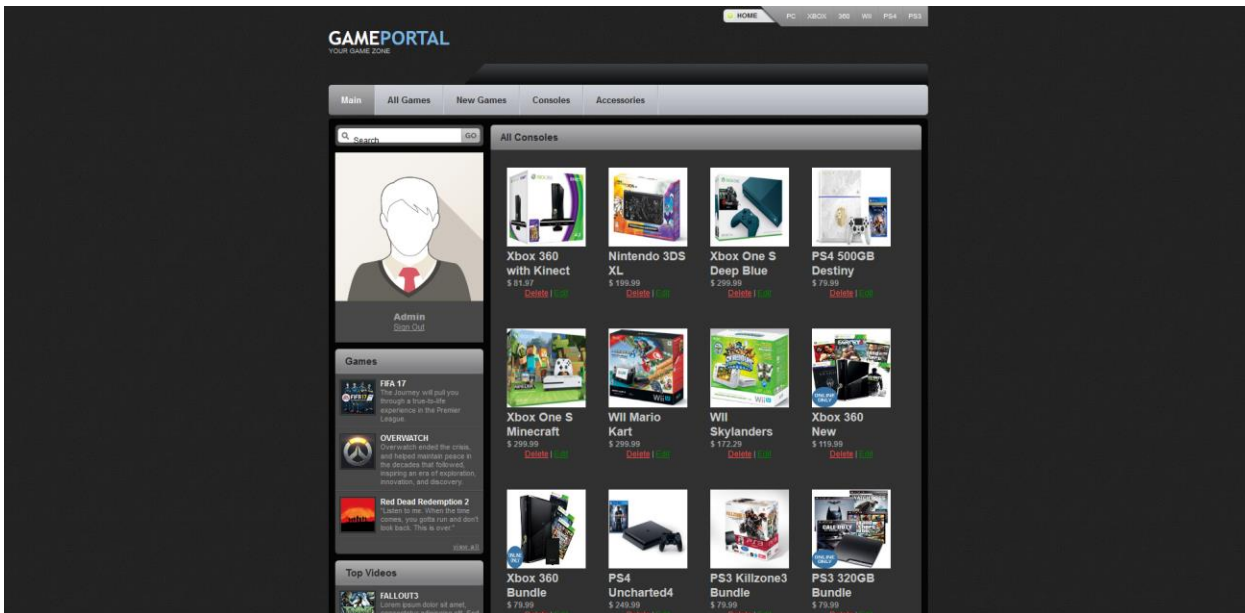




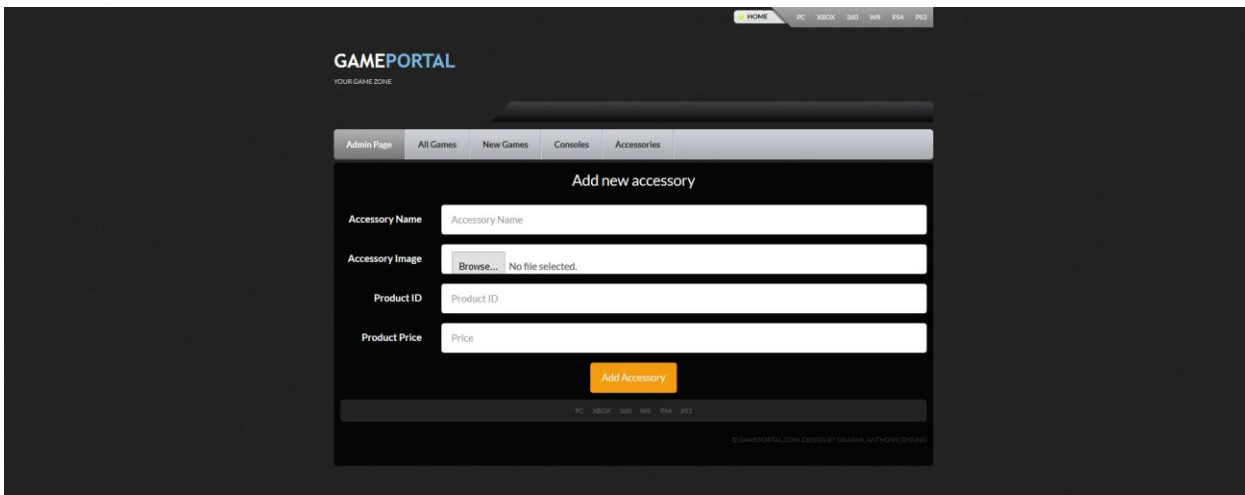
Add Console Page:



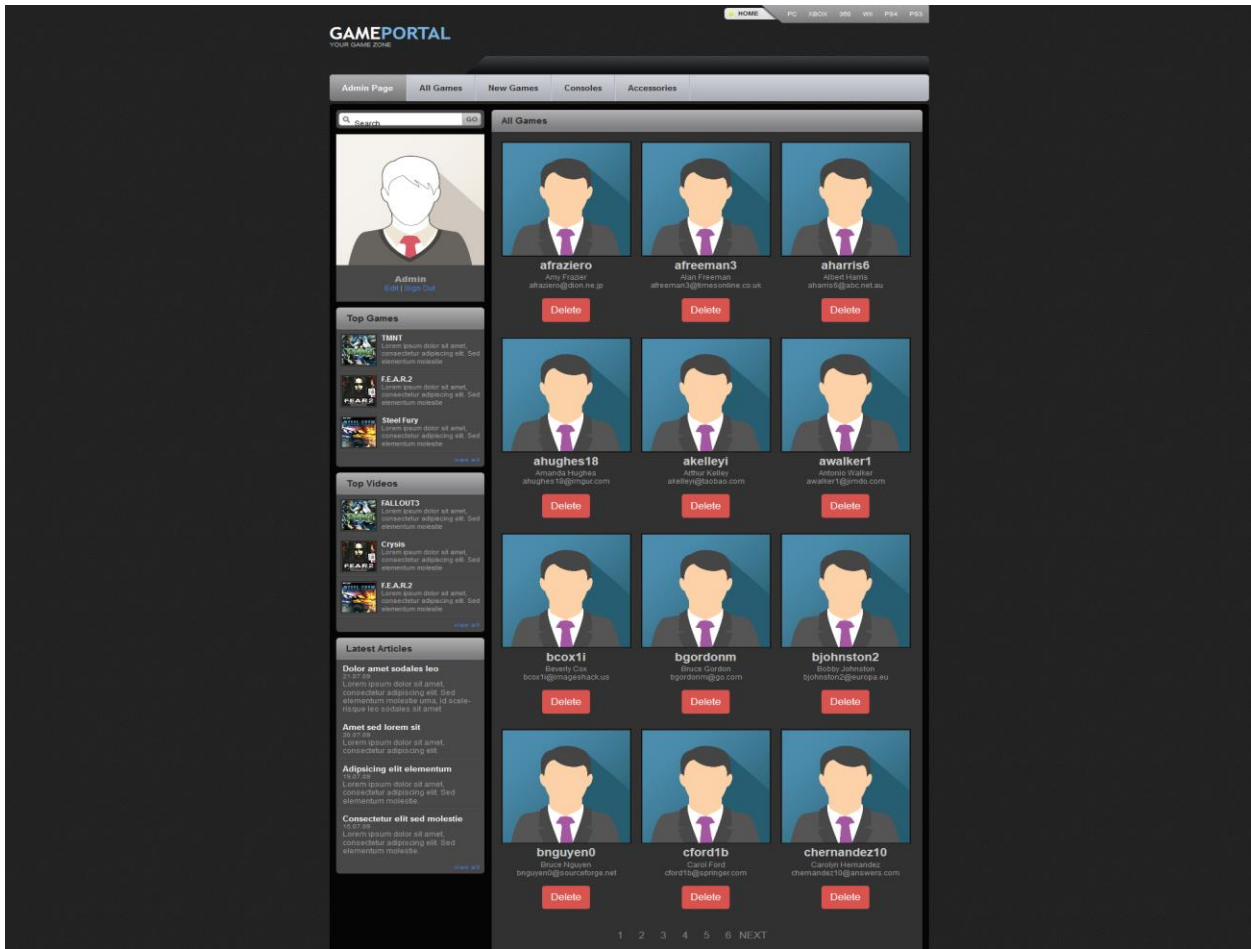
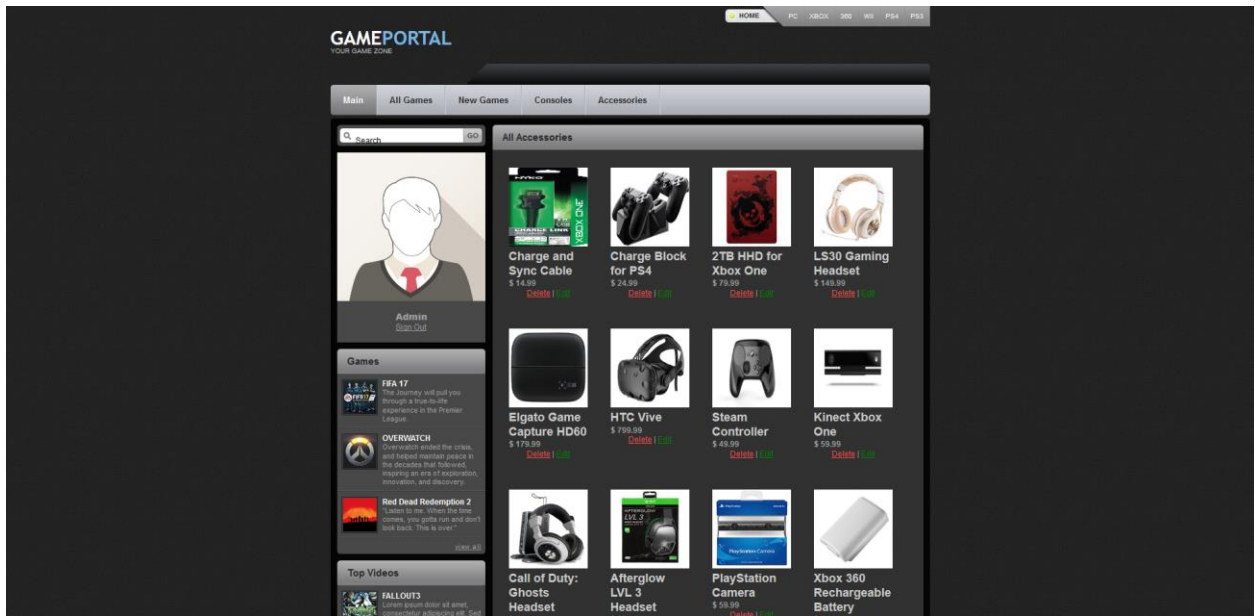
Edit/Delete consoles page:



Add accessory page:



Edit/Delete accessories page:



Delete customers accounts page:

Customers order report for admin user:

#	Customer Name	Customer Address	Product Name	Product ID	Order ID	Date Of Order
1	Jesse Carr	8233 Basil Crossing Apt/House: 39 51105 Sioux City,Iowa	Charge Block for PS4	CHBPS4	47	2016-12-04
2	Jesse Carr	8233 Basil Crossing Apt/House: 39 51105 Sioux City,Iowa	PS4 Uncharted4	PS4U4	46	2016-12-04
3	Roy Cook	9112 Maple Junction Apt/House: 1/8 104/4 Bronx,New York	The Legend of Zelda	LOZWII	45	2016-12-04
4	Bruce Nguyen	99765 Kennedy Avenue Apt/House: 506 34102 Naples,Florida	Wii Skylanders	SKIWII	44	2016-12-04
5	Bruce Nguyen	99765 Kennedy Avenue Apt/House: 506 34102 Naples,Florida	Mario & Sonic	MSWII2016	43	2016-12-04
6	Lois King	38 Forster Point Apt/House: 546 23213 Richmond,Virginia	LS30 Gaming Headset	LS30GHPS4	42	2016-12-04
7	Beverly Cox	26 Summersview Point Apt/House: 279 81005 Pueblo,Colorado	Xbox One S Deep Blue	XBOXSDBLUE500GB	41	2016-12-04
8	Katherine Oliver	163 Cherokee Crossing Apt/House: 95 47719 Evansville,Indiana	Mortal Kombat	MIKXPS4	40	2016-12-04
9	Salman Hassan	3901 Conshohocken Avenue Apt/House: 101 19131 Philadelphia,PA	NFL Controller for Xbox One	NFLCONT	39	2016-12-02
10	Antonio Walker	8 Randy Point Apt/House: 499 95205 Stockton,California	STAR WARS	SWPS4	38	2016-11-30
11	Antonio Walker	8 Randy Point Apt/House: 499 95205 Stockton,California	Wii Mario Kart	WIIMK	37	2016-11-30
12	Ali Mohammed	1148 bcd Apt/House: 4444 19161 NY,NY	DualShock 4 Controller - Gold	PS4CONTG	36	2016-11-27
13	Ali Mohammed	1148 bcd Apt/House: 4444 19161 NY,NY	NFL Controller for Xbox One	NFLCONT	35	2016-11-21
14	James Mills	179 Addison Road Apt/House: 22 32533 Cantonment,FL	PS4 Watch Dogs 2	PS4WD2	34	2016-11-21

Constraint is used to define rules to allow or restrict what values can be stored in columns. The purpose of inducing constraints is to enforce the integrity of a database. For constraints, we use different constraints to create our tables and foreign keys too. This is an example of how we created the tables:

```
CREATE TABLE `accessory` (
  `accessory_name` varchar(100) NOT NULL,
  `image_name` varchar(100) NOT NULL,
  `image` longblob NOT NULL,
  `product_id` varchar(100) NOT NULL,
  `accessory_id` int(11) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

Other constraints we have implemented for foreign keys as the following:

```
--
-- Constraints for table `accessory`
--
ALTER TABLE `accessory`
  ADD CONSTRAINT `accessory_ibfk_1` FOREIGN KEY (`product_id`) REFERENCES `product` (`product_id`) ON
  DELETE CASCADE ON UPDATE CASCADE;
--
-- Constraints for table `console`
--
ALTER TABLE `console`
  ADD CONSTRAINT `console_ibfk_1` FOREIGN KEY (`product_id`) REFERENCES `product` (`product_id`) ON
  DELETE CASCADE ON UPDATE CASCADE;
--
```

```

-- Constraints for table `game`
--
ALTER TABLE `game`
  ADD CONSTRAINT `game_ibfk_1` FOREIGN KEY (`product_id`) REFERENCES `product` (`product_id`) ON DELETE
  CASCADE ON UPDATE CASCADE;
--
-- Constraints for table `items_ordered`
--
ALTER TABLE `items_ordered`
  ADD CONSTRAINT `items_ordered_ibfk_3` FOREIGN KEY (`product_id`) REFERENCES `product` (`product_id`),
  ADD CONSTRAINT `items_ordered_ibfk_4` FOREIGN KEY (`order_id`) REFERENCES `orders` (`order_id`);
--
-- Constraints for table `orders`
--
ALTER TABLE `orders`
  ADD CONSTRAINT `orders_ibfk_1` FOREIGN KEY (`customer_username`) REFERENCES `customer`
  (`customer_username`);

```

Ensure integrity it has been one of our main priority in our project. Data integrity is a fundamental component of information security. So, we kept the information of our customers private, only the customers have the ability to edit and see their informations. As a part of integrity inside the website for instance, customers cannot submit their information at signup form unless he/she filled up the complete form with a security question. Also, when the customer order a product will be asked to confirm his/her information (shipping address, last four digits of his/her bank account) before confirm the order.

For error checking we use a javascript to check for the data entered from the users when they create a new account. For example, if the user try to enter incorrect information when he/she register for a new account it will show an error message like email not correct, password is invalid or need 16 digits only for bank account, picture below illustrates the error messages type

The screenshot displays the 'New Member Sign Up' form on the GAMEPORTAL website. The form includes fields for personal information, address, security questions, and a bank account. Several error messages are visible, indicating validation failures:

- Email:** "E-mail is not valid" (in red text).
- Password:** "Password is not valid \*missing upper/lower case or number" (in red text).
- Bank Account:** "16 digits required" (in red text).

The form fields are as follows:

- First Name:** Salman
- Last Name:** Alhamali
- Username:** Hamali5
- Email:** salman
- Password:** \*\*\*\*\*
- Address:**
  - Street Name:** 686 Newport Street
  - House/Apartment Number:** 23
  - Zip Code:** 13027
  - City:** Baldwinsville
  - State:** New York
- Security Question:** What is your first car?
- Answer:** Chevrolet SS
- Bank Account:** 4251

At the bottom of the form, there are 'Cancel' and 'Submit' buttons. The website's navigation menu is visible at the top and bottom of the page.