

SoftUni Game Store - 5 March 2017

The game store is a digital platform where the users can buy games. Your task is to create a web application that has back-end and front-end logic using the provided resources (**TomEE**, **MVC Framework**, **Bootstrap** and views). You are free to edit those provided resources to fit your needs.

Data Models

Create the required **entities**. Use the appropriate **data types**.

- The system contains information about **users**, and **games**
- Users can **register** in the system. After successful registration, the user has **email**, **password**, **full name**, **list of games** and information whether he is an **administrator or not**.
- The **first registered user** becomes also an **administrator**. You can manually mark users as admins in the database.
- A **game** has **title**, **trailer** (YouTube Video Id), **image thumbnail** (URL), **size**, **price**, **description** and **release date**

Functionality

- **All users** can view the home page.
- **All users** can view details page of each game
- **All users** can add/remove games from their shopping cart
- **Guests** (anonymous users) can register an account with their own email and password
- **Guests** can login by email and password.
- **Logged-in users** can logout.
- **Logged in users** can buy games that are added to the shopping cart and those games are added to the profile of the user and cannot be bought for second time
- **Administrators** can add, edit or delete games
- When guest user tries to access a page that is allowed only for logged in user he should be **redirected to the login page**
- When user tries to access the administrator pages he must be redirected to the home page.

1. Design the Database

Design **entity classes** and create a **database** to hold the **users**, **games** and **orders**

Score: **10 points**

2. Implement User Registration, Login and Logout

The guest users can register and log in the forum. He can provide to:

- **Register**
 - **Email** – must contain @ **sign** and a **period**. It must be unique.
 - **Password** – length must be **at least 6 symbols** and must contain at least **1 uppercase**, **1 lowercase** letter and **1 digit**
 - **Confirm Password** – must **match** the provided password
 - **Full Name**
- **Login**
 - User can log in with **email** and **password**

- **Logout**

- o When logged in the user should have option to **log out**
- o The **Logout** mustn't clean the cart!

After register, the user should be redirected to the login page. If there are any errors with the registration, they should be displayed in the register form. All validations should be performed on the back-end.

SoftUni Store

Cart

Login

Register

Register

Register

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SoftUni Store

Cart

Login

Register

Register

Oh snap! Invalid Password. It should be at least 6 symbols long, containing 1 uppercase letter, 1 lowercase letter and 1 digit. ✕

Register

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SoftUni Store

Cart

Login

Register

Login

Login

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Each type of user must have **unique navigation bar**.

Guest:

User:

Admin:

Score: **17 points**

3. Implement Managing Games

As an admin, you have the option to **add games to the catalog**. A game should be added only to the catalog if matches those criteria:

- **Title** - has to begin with **uppercase letter** and has length between **3 and 100 symbols** (inclusive)
- **Price** - must be a **positive number** with precision up to **2 digits** after floating point
- **Size** - must be a **positive number** with precision up to **1 digit** after floating point
- **Trailer** - only videos from YouTube are allowed and only their **ID** should be saved to the database which is a string of exactly **11 characters**.
For example, if the URL to the trailer is **https://www.youtube.com/watch?v=edYCTaNueQY**, the required part that must be saved into the database is **edYCTaNueQY**. That would be always the last 11 characters from the provided URL.
- **Thumbnail URL** - it should be a plain text starting with **http://**, **https://** or **null**
- **Description** - must be at least 20 symbols

All validations must be performed on the back-end.

Listing all games:

SoftUni Store CartAdmin Logout

All Games – + Add Game

#	Name	Size	Price	Actions
1	Mass Effect Andromeda	62.5 GB	60 €	Edit Delete
2	Mass Effect Andromeda	62.5 GB	60 €	Edit Delete
3	Mass Effect Andromeda	62.5 GB	60 €	Edit Delete

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Adding a game:

Add Game

Title

Description

Thumbnail

Price

€

Size

GB

YouTube Video URL

Release Date

Editing a game:

Edit Game - Mass Effect Andromeda

Title

Description

Thumbnail

Price

€

Size

GB

YouTube Video URL

Release Date

Deleting a game:

SoftUni Store

Cart

Admin

Logout

Delete Game - Mass Effect Andromeda

Title

Mass Effect Andromeda

Description

Mass Effect: Andromeda is an action role-playing game in which the player takes control of either Scott or Sara Ryder from a third-person perspective.

Thumbnail

<https://i.ytimg.com/vi/BqJyluskTfM/maxresdefault.jpg>

Price

49.99

€

Size

62.5

GB

YouTube Video URL

https://www.youtube.com/watch?v=pyZW_oqk7Q8

Release Date

03 / 21 / 2017

Delete Game

Score: **27 points**

4. Implement Home Page

Home page should be accessible for **all users**. It should show a list of **all games** (thumbnail, title, price, size, description) with option to each game to **buy** it and see more **detailed information** for the game. Also, there should be options to **filter** the games:

- All Games
- Owned Games

Only the first **300 characters** of the description for each game must be showed on the home page. There should be no more than **3 games per row**. If the game thumbnail is **null**, you should use the **onerror** attribute. You need to use the following link "<https://i.ytimg.com/vi/{YouTube Video Id}/maxresdefault.jpg>". Example:

```

```

Guest and **user** home page:

SoftUni Store

Filter: [All](#) [Owned](#)



Mass Effect Andromeda

Price - 60€

Size - 62.5 GB

Mass Effect: Andromeda is an action role-playing game in which the player takes control of either Scott or Sara Ryder from a third-person perspective.

[Info](#)[Buy](#)

Mass Effect Andromeda

Price - 60€

Size - 62.5 GB

Mass Effect: Andromeda is an action role-playing game in which the player takes control of either Scott or Sara Ryder from a third-person perspective.

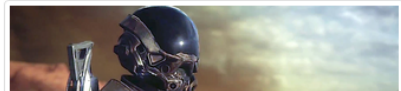
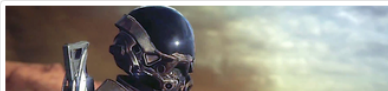
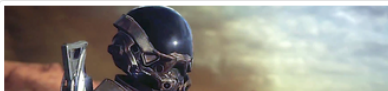
[Info](#)[Buy](#)

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[Info](#)[Buy](#)

Admin home page:

SoftUni Store

Filter: [All](#) [Owned](#)

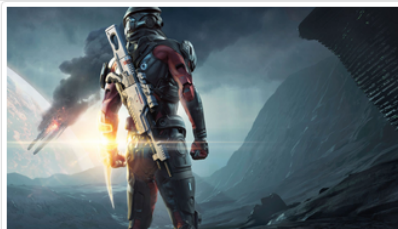


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[Edit](#)[Delete](#)[Info](#)[Buy](#)

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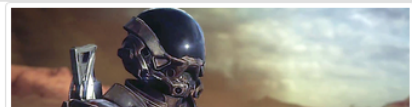
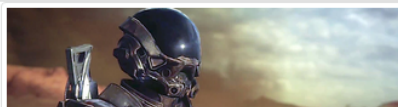
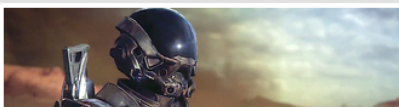
[Edit](#)[Delete](#)[Info](#)[Buy](#)

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[Edit](#)[Delete](#)[Info](#)[Buy](#)

Score: **20 points**

5. Implement Game Details Page


Each game should have detailed page where the users can see **all details** for that game. This includes an embedded YouTube video. You can do it, using the YouTube Video Id, that you keep for each game. You are given the following template:

```
<iframe width="560" height="315" src="https://www.youtube.com/embed/{YouTube Id}" frameborder="0" allowfullscreen></iframe>
```

You need to replace the placeholder with the actual video id.

Guests and users should see this:

Mass Effect Andromeda



MASS EFFECT™: ANDROMEDA – Official Cinematic Reveal

Mass Effect: Andromeda is an action role-playing game in which the player takes control of either Scott or Sara Ryder from a third-person perspective. Both Ryders' appearances and first names can be determined by the player. The appearance of their father, Alec, is automatically adjusted based on how the Ryder twins look. Upon beating the game, a New Game+ is unlocked, which allows the player to restart the game with certain bonuses and switch to using the other Ryder, if interested. Players can also choose to continue playing with their existing character and complete unfinished missions. Unlike previous installments in the Mass Effect series, where players begin each new game by choosing from six different character classes that each have their own unique set of skills, players instead have free rein to assign any skills that they want and build towards a specialty over the course of the game. For example, if the player chooses to invest solely in biotic skills, Ryder will unlock the Adept profile, which results in bonuses related to that play style. Experience points for spending on skills are earned by completing missions, and there is no cap on the number of points that can be earned. Points assigned to each skill can be constantly reallocated so that players can experiment with multiple gameplay approaches without having to restart their games and build up their skills from scratch again.

Price - 60€

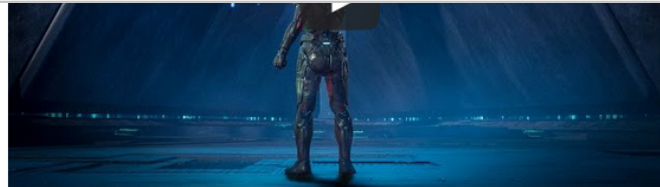
Size - 62.5 GB

Release Date - 21/03/2017

[Back](#) [Buy](#)

Admins should see this:

Mass Effect Andromeda



Mass Effect: Andromeda is an action role-playing game in which the player takes control of either Scott or Sara Ryder from a third-person perspective. Both Ryders' appearances and first names can be determined by the player. The appearance of their father, Alec, is automatically adjusted based on how the Ryder twins look. Upon beating the game, a New Game+ is unlocked, which allows the player to restart the game with certain bonuses and switch to using the other Ryder, if interested. Players can also choose to continue playing with their existing character and complete unfinished missions. Unlike previous installments in the Mass Effect series, where players begin each new game by choosing from six different character classes that each have their own unique set of skills, players instead have free rein to assign any skills that they want and build towards a specialty over the course of the game. For example, if the player chooses to invest solely in biotic skills, Ryder will unlock the Adept profile, which results in bonuses related to that play style. Experience points for spending on skills are earned by completing missions, and there is no cap on the number of points that can be earned. Points assigned to each skill can be constantly reallocated so that players can experiment with multiple gameplay approaches without having to restart their games and build up their skills from scratch again.

Price - 60€

Size - 62.5 GB

Release Date - 21/03/2017

Back

Edit

Delete

Buy


Score: **6 points**

6. Implement Shopping Cart

Each user should be able to buy game. To buy a game the user has to:

- Click on the **buy button** for the desired game
- The game is now **added to a shopping cart**
- The user may **add more games** if he wants
- When he is ready to buy them all he needs to go to the cart page where there is a list of all added games with option to **remove** any if he decides he does not want to **buy it**.
- To buy the games he should click on the **Order button**. If he is not logged in, he must be redirected to the **login page** and he must log in. When is logged in the games should be added to his profile and he can see them on the home page.
- A user can **buy** a game **only once**!
- If he owns a game, he **shouldn't be able to add** it to the shopping cart.

Your Cart

<div>X</div>		Mass Effect Andromeda Mass Effect: Andromeda is an action role-playing game in which the player takes control of either Scott or Sara Ryder from a third-person perspective.	60€
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Total Price - 60 €

Order

Score: **20 points**

7. Project Infrastructure Bonus

Bonus points code quality / good application structure / additional effort.

- Bonus points for implementing **separate data layer**.
- Bonus points for using **dependency inversion**.
- Bonus points for using **AutoMapper**.
- Bonus points for using **services** for different jobs.
- Bonus points for implementing **Repository** or **Unit of Work** pattern

Bonus Score: **20 points**