

# Project plan for IAS

BluDevil digital marketplace



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# 1. Project description

The project is a digital marketplace named BluDevil, a web application for selling and managing digital products. Each product(ex. Software product, video game...) will contain a cd key.

The application will contain:

- A product managing system where an administrator can create, view a product and modify its data and availability.(available, unavailable)
- A user managing system where an administrator can create, view, remove and modify a user's data and state(active, inactive)
- A customer chat support system.
- A shopping cart where a user can add and remove products to later proceed to checkout.

## 2. User Stories

The MoSCoW prioritisation method is applied for the user stories priority.

M(MUST), S(SHOULD), C(COULD), W(WOULD)

US-Nr	User story	Acceptance criteria	Time estimate	Priority
US-01	<ul style="list-style-type: none"><li>• As a visitor</li><li>• I can create an account</li><li>• So that I can become a member</li></ul>	<ul style="list-style-type: none"><li>• I can enter my first name, last name, email and password to create an account.</li><li>• When entering my password I must enter it again to confirm it.</li><li>• I received an email confirmation of my registration.</li><li>• The system notifies the user if the email is already in use.</li><li>• The system notifies the user if the validation failed</li><li>• A message is displayed if the registration failed.</li></ul>	2 days	M
US-02	<ul style="list-style-type: none"><li>• As a account holder</li><li>• I can login into the application</li><li>• So that I can access more services</li></ul>	<ul style="list-style-type: none"><li>• I can enter my credentials(email and password) to login</li><li>• I receive an error message if try to log in with false credentials</li><li>• I receive an error message if my email or password are incorrect.</li></ul>	2 days	M

		<ul style="list-style-type: none"> <li>I am successfully logged in and redirected as a user to the index page and as an administrator to the administrator panel.</li> </ul>		
US-03	<ul style="list-style-type: none"> <li>As a user</li> <li>I can see all the products in the marketplace</li> <li>So that I know the available products</li> </ul>	<ul style="list-style-type: none"> <li>The products are displayed by pagination</li> <li>A product is displayed as a card with the name, image and platform.</li> <li>I can navigate to the first,previous,next and last page of the products.</li> <li>The system displays a error if there are no products</li> </ul>	4 days	M
US-04	<ul style="list-style-type: none"> <li>As a user</li> <li>I can search products by the product name</li> <li>So that I can find a specific product</li> </ul>	<ul style="list-style-type: none"> <li>I can use the search bar to enter a product name</li> <li>The products that match the user input are displayed by pagination.</li> <li>The products are not displayed if no match was found and a message is provided.</li> <li>I can navigate to the first,previous,next and last page of the searched product.</li> </ul>	1-2 days	M
US-05	<ul style="list-style-type: none"> <li>As a user</li> <li>I can filter by price and/or platform all the products</li> <li>So that I can find desired products easier</li> </ul>	<ul style="list-style-type: none"> <li>The products matching the active filter or filters(price and platform) are displayed by pagination.</li> <li>The products are not displayed if no match was found and the system displays an error message.</li> <li>I can navigate to the first,previous,next and last page of the filtered products.</li> </ul>	1-2 days	S
US-06	<ul style="list-style-type: none"> <li>As a user</li> <li>I can inspect a product</li> <li>So that i can view all its details</li> </ul>	<ul style="list-style-type: none"> <li>After clicking a product card I am redirected to another page where all the data(name, image, availability status, description and platform) from the selected product is displayed.</li> <li>Depending on the type of product other information might be shown( example videogame type will also display the release date and genres)</li> </ul>	2 days	M
US-07	<ul style="list-style-type: none"> <li>As a member</li> <li>I can use the cart</li> <li>So that i can proceed to the checkout</li> </ul>	<ul style="list-style-type: none"> <li>I can see my products in the cart.</li> <li>I can remove the selected product in the cart or decrease its quantity.</li> </ul>	3-4 days	M

		<ul style="list-style-type: none"> <li>I can increase the selected product from the cart by pressing a button.</li> <li>If no product is selected in the cart no operation can be performed.</li> <li>When inspecting a product I can add a product to the shopping cart.</li> </ul>		
US-08	<ul style="list-style-type: none"> <li>As a member</li> <li>I can see my account settings</li> <li>So that I can edit my information</li> </ul>	<ul style="list-style-type: none"> <li>The user's first name, last name, email, password is displayed in fields.</li> <li>The user input is validated.</li> <li>I can see if the entered data is wrong.</li> <li>The system notifies the user if the email is already in use.</li> <li>I am notified if the changes fail.</li> <li>I can change my first name, last name, email and password.</li> <li>When changing my password I have to enter it two times</li> </ul>	2 days	M
US-09	<ul style="list-style-type: none"> <li>As a member</li> <li>I can add and remove products in my wishlist</li> <li>So that I can look at them later</li> </ul>	<ul style="list-style-type: none"> <li>When inspecting a product I can add a product to my wishlist.</li> <li>When inspecting my wishlist I can remove a selected product.</li> <li>All the wished products are displayed by pagination</li> <li>I can click a product to view its data(name, image, availability status, description and platform) and the system redirects me to selected product page</li> </ul>	2 days	W
US-10	<ul style="list-style-type: none"> <li>As a member</li> <li>I can use the support chat</li> <li>So that I can say my problems</li> </ul>	<ul style="list-style-type: none"> <li>I can open the support chat.</li> <li>System creates a chat room.</li> <li>I can write and receive a message.</li> <li>I can see if an admin is available to chat.</li> <li>I can get notified when an admin left the chat</li> </ul>	3-4 days	S
US-11	<ul style="list-style-type: none"> <li>As a member</li> <li>I can see my orders</li> <li>So i can inspect one</li> </ul>	<ul style="list-style-type: none"> <li>The orders are displayed sorted by creation time.</li> <li>I can select an order to inspect it.</li> <li>The order date, products names, total price and products cd-keys are displayed when inspecting an order.</li> <li>I can navigate to the first,previous,next and last page of the orders.</li> </ul>	3 days	M

US-12	<ul style="list-style-type: none"> <li>As a administrator</li> <li>I can access the dashboard</li> <li>So I that I can see various statistics</li> </ul>	<ul style="list-style-type: none"> <li>The total number of users is displayed.</li> <li>The average users registered per week is calculated and displayed.</li> <li>The total number of products is displayed.</li> <li>The product turnover is calculated and displayed for a selected product.</li> <li>The five most popular products, sold during the week of a given date, are displayed.</li> </ul>	2-3 days	S
US-13	<ul style="list-style-type: none"> <li>As a administrator</li> <li>I can view all products</li> <li>So that I can manage them</li> </ul>	<ul style="list-style-type: none"> <li>The products are displayed in a pagination.</li> <li>I can navigate to the first,previous,next and last page of the products.</li> <li>I can add a new product.</li> <li>The system redirects the user to the product creation page where all the product data needs to be filled.</li> <li>I can enter the data(name, image, availability status, description, platform and availability of a product) when creating a product.</li> <li>Depending on the selected type of product I can add other information like release date and genres for a videogame</li> <li>The user input is validated.</li> <li>I get notified if the creation was not successful.</li> <li>I get redirected to the products manage page if the changes were successful.</li> </ul>	2-3 days	M
US-14	<ul style="list-style-type: none"> <li>As a administrator</li> <li>I can view all users</li> <li>So that I can manage them</li> </ul>	<ul style="list-style-type: none"> <li>The users are displayed by pagination.</li> <li>I can navigate to the first,previous,next and last page of the users.</li> <li>I can create a new user.</li> <li>The system redirects the user to the user creation page if the create button is pressed.</li> <li>I can enter the data(first name, last name, email, password and role).</li> <li>I have to enter the password two times.</li> <li>I get notified if the data i enter is not valid or if the creation failed</li> <li>I get redirected to the user manage page on successful creation</li> </ul>	2-3 days	M

US-15	<ul style="list-style-type: none"> <li>As a administrator</li> <li>I can see the support chats</li> <li>So that I can respond to them</li> </ul>	<ul style="list-style-type: none"> <li>The user chats are displayed, sorted by creation date, by pagination.</li> <li>I can select a chat-room to view it and join to respond to the user.</li> <li>I can leave from a chat room.</li> </ul>	3-4 days	M
US-16	<ul style="list-style-type: none"> <li>As a administrator</li> <li>I can view a products cdkeys</li> <li>So I can manage them</li> </ul>	<ul style="list-style-type: none"> <li>After selecting a product from the product manage page I can view the cdKeys of the product by pagination.</li> <li>The system redirects the user to the cdKey manage page of the selected product where a cdkey can be created or updated.</li> <li>I can enter the cdKey sequence when editing and creating a key.</li> <li>The system validates the user input.</li> <li>I get notified if the action failed or if the input is not valid.</li> <li>After a successful action i am redirected to the selected product cdKey manage page.</li> </ul>	2-3 days	M
US-17	<ul style="list-style-type: none"> <li>As a administrator</li> <li>I can view the products platforms</li> <li>So I can manage them</li> </ul>	<ul style="list-style-type: none"> <li>I can view all the platforms by pagination</li> <li>I can edit or create a new product platform</li> <li>The system redirects the user to the product platform creation or edit page.</li> <li>I can enter the product platforms data ( name)</li> <li>The data is validated by the system.</li> <li>I get notified if the action was not successful by a message.</li> <li>I get redirected to the product platforms manage page upon a successful action.</li> </ul>	2-3 days	M
US-18	<ul style="list-style-type: none"> <li>As a administrator</li> <li>I can select a product</li> <li>So I change it</li> </ul>	<ul style="list-style-type: none"> <li>I can select a product from the list to edit or delete.</li> <li>The system redirects the user to a product edit page where all the product data is displayed in fields.</li> <li>I can change the data(name, image, availability status, description, platform and availability of a product).</li> <li>Depending on the type of product I can change other information like release date and genres for a videogame</li> </ul>	2-3 days	M

		<ul style="list-style-type: none"><li>• The user input is validated.</li><li>• I get notified if the changes were not successful.</li><li>• I get redirected to the products manage page if the changes were successful.</li></ul>		
US-19	<ul style="list-style-type: none"><li>• As a administrator,</li><li>• I can select a user,</li><li>• So I can edit their data</li></ul>	<ul style="list-style-type: none"><li>• I can select a user to change his data or remove him.</li><li>• The system redirects the user to the user editing page where all the user data is displayed in fields.</li><li>• I can change the data(first name, last name, email, password, role and state) of the user in the user edit page.</li><li>• I get notified if the data i enter is not valid or if the changes failed</li></ul>	2-3 days	M






### 3.Product backlog

Legend items:

 User story

Legend items status:

 Done  WIP(Work in progress)  TBS(To be started)

US-Nr	Story	Priority	Sprint	Status	Estimated time
03	As a user, I can see all the products in the marketplace, so that I know the available products	M	2	Done	4 days
06	As a user , I can inspect a product , so that i can view all its details	M	2	Done	2 days
04	As a user, I can search products by the product name, so that I can find a specific product	M	2	Done	1-2 days
05	As a user, I can filter by price and/or platform all the products, so that I can find desired products easier	S	2	Done	1-2 days
13	As a administrator, I can view all products, so that I can manage them	M	2	Done	2-3 days
18	As a administrator, I can select a product, so I change it	M	2	Done	2-3 days
16	As a administrator, I can view the products platforms, so I can manage them	M	2	Done	2-3 days
17	As a administrator, I can view a products cdkeys, so I can edit them	M	3	TBS	2-3 days
07	As a member, I can use the cart, so that i can proceed to the checkout	M	3	TBS	3-4 days
11	As a member, I can see my orders, so i can inspect one	M	3	TBS	3 days

14	As a administrator, I can view all users, so that I can manage them	M	3	TBS	2-3 days
19	As a administrator, I can select a user, so I can edit their data	M	3	TBS	2-3 days
12	As a administrator, I can access the dashboard, so I that I can see various statistics	S	4	Done	2-3 days
01	As a visitor, I can create an account, so that I can become a member	M	4	Done	2 days
02	As a account holder, I can login into the application, so that I can access more services	M	4	Done	2 days
08	As a member, I can see my account settings, so that I can edit my information	M	4	Done	2 days
10	As a member, I can use the support chat, so that I can say my problems	M	5	Done	3-4 days
15	As a administrator, I can see the support chats, so that I can respond to them	M	5	Done	3-4 days
09	As a member, I can add and remove products in my wishlist, so that I can look at them later	W	5	TBS	2 days

Total sprint 2: 19 days

Total sprint 3: 16 days

Total sprint 4: 8 days(+possible additional due to previous week requirements)

Total sprint 5: 10 days

## 4.Sprint planning

The project lifecycle is 17 weeks and it is divided into six sprints. Starting from the 1st till the 5th sprint, each sprint will have a duration of 3 weeks. The last sprint duration is 2 weeks. In this section the activities and deliverables for each sprint are enumerated.

### Sprint 1

#### Activities:

- Working on the project planning document
- First setup of Restful API
- CI environment initialization
- Creating wireframe/sketches for the user interface
- Start creating ERD diagram

#### Derivables:

- Project plan document
- Restful API for web application
- CI environment

## Sprint 2

### Activities:

- Create entity relation diagram
- Create high level architecture respecting SOLID
- Create UML class diagrams
- Start creating frontend user interface based on wireframe/sketches
- Start developing the backend of the application and tackle the user stories based on their priority
- Finish 1st prototype

### Derivables:

- 1st version of the design document
- 1st prototype

Estimated completed user stories: US-03, US-04, US-05, US-06,US-13, US-16

## Sprint 3

### Activities:

- Continue working on design document
- Continue working on the functionalities
- Finish 2nd prototype

### Derivables:

- 2nd version of the design document
- 2nd prototype

Estimated completed user stories: US-14, US-07, US-08, US-11, US-13,US-19

## Sprint 4

### Activities:

- Work on design document
- Polish working functionalities
- Set up backend in multiple layers using Interface segregation and dependency inversion
- Finish 1st release of the application
- Create a movie per finished user story
- Work on sprint backlogs and burn-down charts
- Work on quality assurance metrics
- Present application, receive feedback from two users and create the UX feedback report

### Derivables:

- 3rd version of the design document
- 1st release version
- Sonarqube screenshot/report pre-post
- UX feedback report

Estimated completed user stories: US-08, US-01, US-02, US-12

## Sprint 5

### Activities:

- Finish design document
- Apply user feedback from UX report
- Finish 2nd release of the application
- Work on backlogs and burn-down charts

### Derivables:

- Final design document
- 2nd release version
- Updated backlogs and burn-down charts

Estimated completed user stories: US-10, US-15, US-09

## Sprint 6

### Activities:

- Work on final report
- Work on final release with docker integration
- Update backlogs and burn-down chart
- Hand in all the work

### Derivables:

- Reading guide
- All feedback form individual track and group project in PDF
- Updated backlogs and burn-down chart
- Final release

## 6.Version history

### 6.1 Document version history

#### 6.1.1 Project plan

Version/Date	Description
V1.0 / 04-03-2021	<ul style="list-style-type: none"><li>• Setup project layout</li><li>• Wrote project description</li><li>• Wrote user stories</li><li>• Wrote product backlog</li><li>• Created temporary API data description</li><li>• Wrote API design for the “products” section and the images for “other” section</li><li>• Wrote version history for the project plan( v1.0 ) and the API ( v1.0.0 )</li></ul>
V1.1 / 07-03-2021	<ul style="list-style-type: none"><li>• Removed data description section</li><li>• Modified api endpoints</li></ul>
V1.2 /16-0-2021	<ul style="list-style-type: none"><li>• Updated product backlog</li><li>• Update versioning sections</li><li>• Moved api design to design document</li></ul>
V1.3 /19-05-2021	<ul style="list-style-type: none"><li>• Updated product backlog</li><li>• Update versioning section</li><li>• Updated the table of contents</li><li>• Removed API version history</li></ul>
V1.4 /19-06-2021	<ul style="list-style-type: none"><li>• Updated product backlog</li><li>• Updated versioning table</li></ul>