



Blackboard

Budget Blackboard

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1. App idea	3
2. Functional design	4
2.1 Wireframes	4
2.2 Use Cases	7
3. Technical design	7
3.1 API Documentation	8
3.2 Domain model	10

Documentation

1. App idea

The general idea of the website is to create a simple, yet functional version of Blackboard Learn. The site will consist of a list of courses. Each course will have multiple subjects, which in turn have up to 8 topics.

In order to use the system users will have to login/register. They will have different permissions that will allow them to either read, edit, remove or add certain attributes (courses, subjects or topics).

2. Functional design

2.1 Wireframes

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Blackboard [Logout](#)

[Register](#)

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The login screen will accept three parameters: the type of account - teacher or student, the username or the email and the password. Depending of the type of account - the user will have different permissions. If the user has no account, he/she will be able to create one from the 'Register' button.

When creating an account, the user will be able to select the type of account, he/she wants to create. The username or the email, as well as password would be required in order an account to be created.

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Course name	Difficulty	Available credits	Duration (in years)	Options
ICT	5	4	48	Edit a course View subjects Delete a course
Tourism management	2	4	51	Edit a course View subjects Delete a course

Add a course

When you click the link above, you will be able to **add** a new course to the already existing courses!

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After the user is logged in, he/she can preview all the courses available. If the user is a teacher, he/she can add, edit or delete a course. If he/she is a student, the courses will be able to be previewed and selected only.

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Subject name	Difficulty	Credits	Duration (in weeks)	Options
Databases	4	4	8	Edit a subject View topics Delete a subject
Network services	3	3	8	Edit a subject View topics Delete a subject
Testing	4	4	8	Edit a subject View topics Delete a subject

Add a subject

When you click the link above, you will be able to **add** a new subject to the already existing subjects in that course!

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The same is valid for the subject preview screen. If the user is a teacher, he/she will be able to add, edit or delete a subject. If the user is a student, he/she will be able to preview the subject and select it.

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Topic name	Difficulty	Options
Week: 1 Introduction	1	Edit a topic Delete a topic
Week: 2 Aggregation	2	Edit a topic Delete a topic

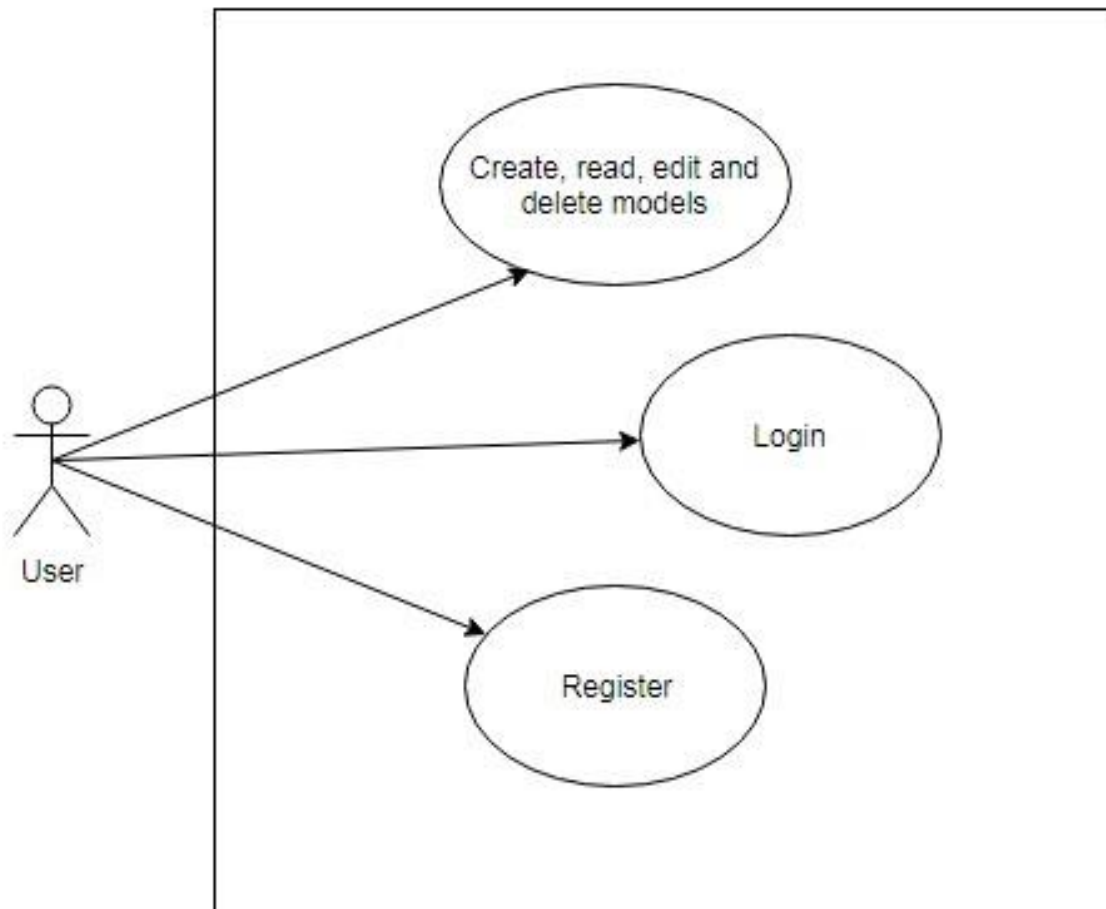
[Add a subject](#)

When you click the link above, you will be able to **add** a new topic into the chosen subject!

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Same for the topic preview.

2.2 Use Case



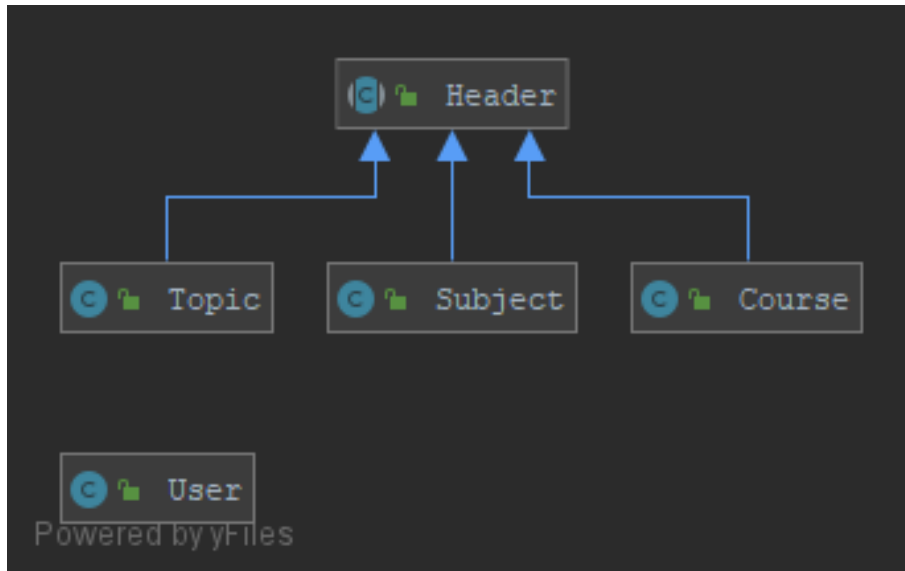
3. Technical design

3.1 API Documentation

URL	Input	Example output
GET /courses <i>Returns all available courses</i>		#1 - Geometry #2 - Applied mathematics #3 - Algebra
GET /courses/{courseID}/subjects <i>Returns the subjects of selected course</i>	The selected Course id	Success: Week 1 - Introduction and first steps Week 2 - Getting started Failure: (Subject not found) Desired subject not found.
GET /courses/{courseID}/subjects/{subjectID} <i>Returns the topics of the selected subject</i>	The selected Subject id	Success: Week 0 - Introduction Failure: (Topic not found) Desired topic not found.
POST /courses/add <i>Returns a form to create a new course</i>	Fill out form details	Success: Course is created and you're redirected to the list of courses Failure: (Invalid input) Please fill out the form properly
POST /courses/{courseID}/subjects/add <i>Returns a form to create a new subject</i>	Fill out form details	Success: Subject is created and you're redirected to the list of subjects in the current course Failure: (Invalid input) Please fill out the form properly
POST /courses/{subjectID}/subjects/{subjectID}/add <i>Returns a form to create a new topic</i>	Fill out form details	Success: Topic is created and you're redirected to the list of topics in the current subject Failure: (Invalid input) Please fill out the form properly

POST <i>/courses/edit/{ID}</i> Returns a form to edit the selected course	Redact form details	Success: Course is edited and you're redirected to the list of topics Failure: (Invalid input) Please fill out the form properly
POST <i>/courses/{courseID}/subjects/edit{ID}</i> Returns a form to edit the selected subject	Redact form details	Success: Subject is edited and you're redirected to the list of subjects in the current course Failure: (Invalid input) Please fill out the form properly
POST <i>/courses/{courseID}/subjects/{subjectID}/edit{ID}</i> Returns a form to edit the selected topic	Redact form details	Success: Topic is edited and you're redirected to the list of topics in the current subject Failure: (Invalid input) Please fill out the form properly
GET <i>/courses/delete/{ID}</i> Deletes the selected course	The selected <i>Course id</i>	Success: Topic is edited and you're redirected to the list of topics in the current subject Failure: (Invalid input) Cannot find <i>topic id</i>
GET <i>/courses/{courseID}/subjects/delete/{ID}</i> Deletes the selected subject	The selected <i>Subject id</i>	Success: Topic is edited and you're redirected to the list of topics in the current subject Failure: (Invalid input) Cannot find <i>topic id</i>
GET <i>/courses/{courseID}/subjects/{subjectID}/delete/{ID}</i> Deletes the selected topic	The selected <i>Topic id</i>	Success: Topic is edited and you're redirected to the list of topics in the current subject Failure: (Invalid input) Cannot find <i>topic id</i>

3.2 Class diagram



3.3. User Accounts and Passwords:

User 1: email: pepi@email.com

password: 123

User 2: email: ivo@gmail.com

password: 111