ITP project

**Online library “Innopolis Library”**

**Group**: BS1-1

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**Educational institution**: Innopolis University

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Online Library – why it is relevant?

The digital library is an ordered collection of dissimilar electronic documents (including books), equipped with means of navigation and search.

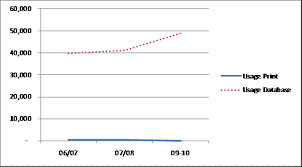
The electronic library is a collection of documents in digital format, accessibility that depends on the availability of computer technology, respectively. Nowadays, it is possible to use a large number of electronic libraries by the global computer network.

The main goals of the digital library are:

1. informational, aimed to the needs of getting information of different categories of users across all the knowledge’s sectors or in one of the subject areas
2. educational,  which is realized through the high popularity of books, manuscripts and other documents relating to the history and culture;
3. Research-oriented, aimed on deep studyings of the subject by highly enlightened scientists and specialists, through the provision of the dissertations and handwritten materials
4. The reference, allowing to receive reliable information, reflected in documents of a specific type.

It can be stated with all certainty: electronic libraries are a fundamentally new, promising, perspective form of library existence in the information society, the main whose purpose is to improve the library service.

In addition, here is the statistics of the Kent State University of comparing an amount of people (in Ohio) who use printed documents to amount of people who take them from database in recent years.



Description of Project: “Innopolis library”

1. **Roles of the team members**:

*Niaz Tuleulov*: Backend Development

Languages and resources: PHP, SQL, ORM System , MariaDB

*Anastasiya Boiko*: Frontend Development

Languages and resources: HTML, CSS, BootStrap, JavaScript

*Artyom Ivanov* : Documentation and Presentations

1. **Link to the website with our project**: <http://forsomeone.000webhostapp.com/>
2. **GitHub repository**: https://github.com/niazlake/Expo

# Technical issues

## Frontend

### HTML5

For the frontend we have chosen HTML5. Since the invention of the worldwide Internet, HTML became one of the most convenient markup tools for creating websites. The HTML language is constantly being improved, providing many new features, which make it possible to develop exclusive Internet projects.

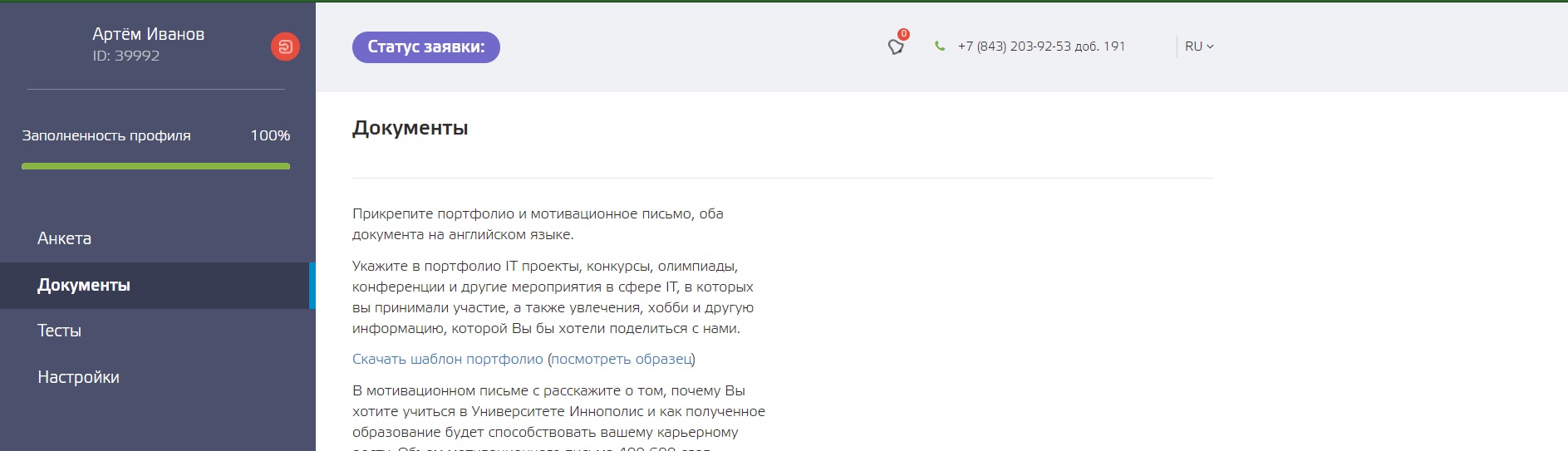
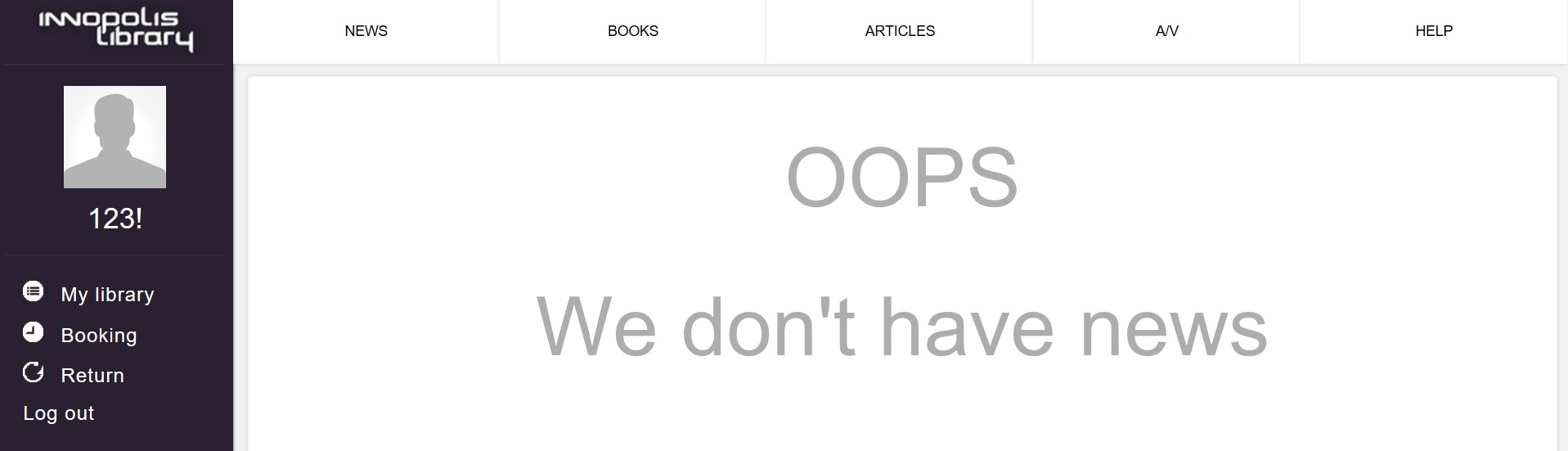
There are several reasons for using HTML5:

1. New features of HTML5 make it possible to make the document code much cleaner than before
2. There is no need to use third-party programs such as “Adobe Flash” to work with photos or listen to the music
3. The data input in HTML 5 becomes simpler and more pleasant. This is expressed in the verification of information even before its publication, which is not inherited from the old version.

### CSS

However, to develop a modern website, it is not enough to use just a HTML. Therefore we used **Cascading Style Sheets** to design a website that can meet modern standards.

This allowed us to develop our library in “Innopolis Style”



## Backend

We created our library and checked all the test cases using PHP. There are several reasons for such choice:

1. MySQL is used with PHP as back-end tool. MySQL is the popular online database and can be interfaced very well with PHP. Therefore, PHP and MySQL are excellent choice for webmasters looking to automate their web sites.
2. PHP language has its roots in C and C++. PHP syntax is most similar to C and C++ language syntax. So, programmers find it easy to learn and manipulate.
3. PHP can be used with a large number of relational database management systems, runs on all of the most popular web servers and is available for many different operating systems.
4. PHP5 a fully object oriented language and its platform independence and speed on Linux server helps to build large and complex web applications.

Here’s the example of a test case (more in the GitHub repository)

