Liquid Galaxy Project

CMS (Content Management System):

There are a lot of CMS platform providers, either free or with subscription, for example:

- Wordpress - is a free popular platform that can act as part of an internet hosting service, or on a local computer as its own web server.
  - In the backend, Wordpress is based on PHP to allow support for more human-readable permalinks (URL that is intended to remain unchanged for a long period and time, being very easy for users to type and remember)
- Pulse CMS - is a software designed for helping the developer to add content to an existing site and manage it easily.
  - For backend, this Content Management System uses Apache and PHP 5:
    - Apache is a free and open-source cross-platform web server software (more than 60% of all websites are using it);

- ■ **PHP 5** is a server side scripting software created in 2004 with improved support for object-oriented programming;
- ● **Backdrop CMS** - is part of the Drupal project for providing affordable CMS for small and medium-sized organizations.
  - ○ Backdrop can be extended with its various modules;
  - ○ In backend, Backdrop is also using **PHP**;

Students Chat:

For Students Chat:

- ● **IRCCloud** - is a platform created on IRC (internet relay chat) for real-time discussions.

  - ○ In the backend, for building the platform were used programming languages like: **JavaScript**, **Ruby**, **Python**, **Erlang** and **C**:

    - ■ **JavaScript** - a software that can be used also in front-end as in back-end. It can be used for a nice looking interface and also for animations inside the chat box;

    - ■ **Ruby** - this framework helps developers to build websites and applications, because it abstracts and simplifies common

repetitive tasks. The process of using the platform is much faster than with other languages, because of the object-oriented nature of Ruby and the vast collection of open source code available within the Rails community.

- Python - is a powerful programming language that can handle the task easy and with a few lines of code; With Python the process can be automated;

- Erlang - is used for developing systems that can be distributed among different computers in a network;

- C - is widely used for system programming in implementing operating systems and embedded system applications;

- G-Suite - was created by Google for teams and small businesses. On this platform users can create web conferencing, file sharing and schedules;
  - In the backend were used the following programming languages:
    - JavaScript;
    - Python;

- ■ Java - was created for the distributed environment of the internet. Java enforces an object-oriented programming model.
- ■ Objective-C - is an object-oriented programming language that adds Smalltalk-style messaging to the C programming language

- BlueJeans Video Communications - has the ability to create cloud-based conferencing service
    - ■ JavaScript;
    - ■ Java;
    - ■ C# - is an object-oriented programming language. C# is based on C++ and contains features similar to those of Java.
    - ■ Objective-C;

Students Community:

- For students community there are cloud platforms like:
    - ○ Bitrix24 - is a social intranet software used for instant messaging, group chat, videoconferencing and likes. In the backend this platform is using:
        - ■ PHP - is embedded within a web page along with its HTML. Before the page is sent to a user that has requested it, the Web server calls PHP to

interpret and perform the operations called for in the PHP script.

- ○ Tribe - is a cloud platform for online communities. Integrated with messengers and social media. Users can follow topics or people within the community. For the backend were used programming languages such as:
  - C;
  - Objective-C;
  - Java;
  - Swift - Swift provides a compiled general-purpose language for Apple devices and computers. The language makes it possible for a program to run C, Objective-C and C++, as well as Swift code within a single application.

Publishing photos on the web:

- Publishing photos on the web can be done by using PHP on the backend.
  - ○ Google Drive - is used for file sharing, with multiple users able to modify shared files:
    - Python;
  - ○ Flickr - has the same usage as Google Drive but mainly for photos:

- PHP;
- Java;
- JavaScript;