**GINA CODY School of Engineering and Computer Science**

**Department of Computer Science and Software Engineering**

**Concordia University**

**SOEN 342**

**Phase 1**

**Abstract**

*Your abstract goes here: general description of the file components (Alexandra)*

**Part I: Market analysis (he wants at least 3)**

-        *Existing products and features*

-        *Comparative study*

-        *…*

*Found these (feel free to change them if you think there is better options or adding more):*

[*https://www.powerkid.com/*](https://www.powerkid.com/)*(Emanuelle)\*

*Khan Academy (*[*https://www.khanacademy.org/*](https://www.khanacademy.org/)*)(Dzmitry)*

* Offered Features
  + Prerecorded video classes:

Academic material is available as a combination of prerecorded video classes and readings which together cover the chosen subject. It is convenient because the student can rewatch and reread these materials as much as he wants to better understand.

* Exercises with solutions:

After watching or reading through some lectures, the student has the possibility to do some exercises about the covered subjects. This gives him some feedback on how well he understood the material.

* Material categorized by subject and grade:

The academic material that is accessible on this platform is categorized by subject and grade. This simplifies the task for whoever is looking to learn something specific.

* Search bar for material:

In addition to the category menu, the website offers its users a search bar to help them find what they are looking for. Users can enter keywords and phrases there, and Khan Academy will output the material relevant to the search.

* Authentication:

This platform supports registering for three different types of accounts (student, parent, teacher). Different functionalities are available to the different types of users. This authentication process allows keeping track of what the user does on the website.

* Parent control:

For a student account of somebody under the age of 12, there has to be a parent’s account associated. First, if there is no parent’s account that approves this student’s account within a week, the student’s account is automatically deleted. This feature also allows the parent’s account to be their child’s administrator (features like limiting some content, verifying the progress…).

* Class creation:

A teacher’s account has the ability to create classrooms and add students (student accounts) in their classroom. After that, teachers can assign watching/reading specific content and doing exercises to their students with a deadline. Teachers also have access to their student’s activity on the platform (everybody’s grades, missed homework).

* Badges (milestones):

By listening/reading through the material and by completing the exercises, students can earn badges. This marks the milestones that they achieve and shows them their progress.

* Pros
  + Clear minimalist (professional) layout:

The general layout of the website is clean, and a neutral color palette was chosen (blue and white). It is also easy to find the different tools offered on the website. The aesthetic of the website is professional which is a good thing because the users are still there to learn.

* Combination of content presentation and practice exercises

It is a good thing that the students can not only learn some material, but can also practice their newly acquired knowledge. This is extremely useful to the learning process and makes it more interesting to the user. The student will be less likely to fall asleep if he has some exercises to do than if he only had to read and listen through the big chunks of information.

* Gamification of the learning process

While doing exercises, students have visual and auditory  feedback on whether their answers are right or wrong. They also earn badges the more they go through the different lessons. This is a great thing for an e-learning platform as it motivates students to learn.

* Cons
  + Overwhelming content menu:

Even if the academic content is categorized by subject and grade on the website, the menu showing these categories is difficult to look at. As shown in Figure 1, the menu looks overwhelming. An improvement would be to show only parts of this menu in which users are interested in. This could be achieved by hovering effects or more general category selection.

Graphical user interface, application, table

Description automatically generated**Figure 1:** Categorized content menu of Khan Academy

* No live classes:

There is no tool on Khan Academy’s website to conduct or even schedule live classes. This is a feature that is important to a lot of people, and it was demonstrated during the Covid-19 pandemic.

* No Q&A of any sort:

Even though some concepts covered by the academic material found on this platform are complicated, there is no way for the students to ask questions. It is not always clear what a prerecorded video tries to explain and listening to it again and again does not always help. This is why students should have a way to ask questions that they might have, and their teachers or tutors approved by the e-learning platform could answer them.

[*https://smartonlinetutoringacademy.com/*](https://smartonlinetutoringacademy.com/) *(Greek boi)*

[*Chegg - Get 24/7 Homework Help | Rent Textbooks*](https://www.chegg.com/)(*Olivier)*

**Part II: E-Academy presentation**

-        *Users (Aleksandr)*

o   *Students/parent (you can have them separately)*

o   *Tutors*

o   *Administrators/managers*

-        *Proposed features (Yulia)*

o   *Accounts creation*

o   *Requests management*

-        *Project value (Tahmid)*