



Codementum Brief

Summary:

Codementum is a web-based online education platform which teaches coding for everyone. Students, teachers and also adults can learn how to code through gamified subjects.

Codementum provides all of the curriculum, intuitive tools, and resources required to run a successful CS program. Interactive learning platform allows kids to progress at their own pace and seamlessly transition to text languages like JavaScript and Python. Children can obtain 21st century skills and especially the skill of computational thinking by means of our platform.

Using Python and JavaScript, students learn to code and then build their own Mobile games and apps. Codementum is a fun and educational game environment where students learn to code in a real programming language from the beginning.

It is designed as a classroom resource with fully-guided lesson plans. This means, every teacher can teach the Codementum courses, even if they have no prior experience in Computer Science.

It is a student-focused platform where students can learn coding and all computer science subjects individually. Besides, it can also be used in the classroom environment and during lessons, students can learn through the programme under guidance of a teacher and within the scope of a curriculum.

Users have their own username and password. So first they sign up and then they log in with their own accounts. Teachers can follow the progress of each student in detail. They can even see the time spent for each part of a subject. They can also see how many stars each student is awarded for each part. In addition parents can also follow the progress of their children by registering through a parent account.

In the platform, there is a live support section through which users can ask everything when they learn. Also there is a documentation of each subject in the challenges where students learn how to code through gamified lessons. So these features also facilitate the usage of the platform individually.

If you wish, you can have more detailed information by clicking the links below:

Presentation: <https://codementum.com/presentation/>

Youtube link: <https://www.youtube.com/watch?v=uzJBZJGGrtg>

Description:

Codementum is a web-based online education platform which teaches coding through gamified subjects. Besides, Codementum provides all of the curriculum, intuitive tools, and resources required to run a successful CS program. Students learn how to code by using

Python and JavaScript. All the subjects of these languages are gamified and also there are documents in which the subjects are explained in detail with their theoretical and practical aspects. After they learn coding, then they can build their own Mobile games and apps. It can be used individually and under the guidance of a teacher.

Our Products within the platform:

Codementum Studio; Here students learn coding in a fun way by playing games. In this educational gamified platform, children learn coding while playing an adventurous game. Students can learn through a curriculum designed exclusively for different age groups. Synchronized Text- based and Block-based coding system enables children to switch between text code and code blocks at any time. By converting text-based codes into blocks, children will be able to construct algorithms faster by visualizing the code when they write.

Codementum App/Game Maker; here it is possible to develop platform-independent mobile applications/games. In both Python and JavaScript programming languages, children can develop mobile applications/games for IOS and Android platforms with the help of a tutorial part. They can have the opportunity to see the real life implementation of a coding application. This enables them to see what they learn in coding lessons can be used in real life. And this gives them great confidence and eagerness to learn. They can download the applications/games they developed into their own mobile phone through a QR code. They can also upload their applications to online Stores and share with their friends.

Codementum AI-ML Maker; here students learn and develop AI & ML applications. AI (Artificial Intelligence) & ML (Machine Learning) is everywhere and changing the world. This subject is quite new for the whole coding world and starting from basic concepts, children will learn how to develop AI & ML applications in a simple and fun way. So they will have the chance to meet with this new concept and even to use it through real life implementations.

Codementum STEM; This is the way to write code for electronic devices! Electronic kits are a great way for kids to understand how the digital and physical worlds can blend and result in interesting inventions. This product is especially designed for after school clubs where they make different activities.

Codementum Computer Science; Here all the subjects within the scope of the CS curriculum is included and explained in detail. By using computer science platform, children can prepare themselves for computing exams using the resources provided on the theoretical topics as well as pseudocode and algorithms. In addition, quizzes are provided for students to assess their knowledge.

There is a live support section through which users can ask everything when they learn. Also there is a documentation of each subject in the challenges of the game where students learn how to code through gamified lessons. So these features also facilitate the usage of the platform individually.

No previous experience in coding required. Codementum is designed as a classroom resource with fully-guided lesson plans.

It is quite easy for teachers to monitor & assess their students' progress. Automatic grading system saves a lot of time while evaluating the students. It is possible to see how far the students have progressed through the courses and how well they have performed. This in turn makes it easier to find a topic in which the students were struggling and address it specifically.

Distinction and innovation

- There is a synchronization between Text-based and Block-based coding system which enables children to switch between text code and code blocks at any time.
- All the subjects of Python and Javascript languages are gamified. By completing the challenges in the game, children will learn all of the subjects of these coding languages.
- There is the opportunity to develop mobile applications and games by means of an online interface through a tutorial. At the end of the developing stage, they can download the apps and games into their own mobile phone through a QR code.
- Students can develop their own artificial intelligence applications for mobile phones by using pre-trained AI libraries through a tutorial.

All of these innovations are used for the first time throughout the world.

Suitability/fit for purpose:

Our platform is compatible with the local curricula of the countries and the global curricula. Our curriculum has been prepared in accordance with the "Common Core State Standards", "CSTA K-12 Computer Science Standards", "ISTE Standards" and "National Curriculum in England" standards.

Parental accessibility and engagement:

There is parental access to our platform. By registering via parent account, parents can follow the progress of their children.

Inclusivity, digital accessibility and usability:

Our platform covers children between the ages of 7-16. Even it is prepared for K-12, it is open to anyone who wants to learn coding. Since it is web-based, internet access is required and can be used through any browser.

GDPR compliance:

We attach great importance to data security on our platform. In terms of data security, it meets the General Data Protection Regulation (GDPR) requirements and is fully compliant with GDPR.

Online safety:

In our cloud-based system, online security is maintained with online security software that has proven itself in the global arena.

Breadth of evidence and research:

We have 2 first-stage R&D schools for Primary and Secondary schools which include about 1000 students. Our content, prepared with Computer Science Teachers, UCL EDUCATE and other academicians, is first tested in these R&D schools. Then, in the second stage, it is used with approximately 2000 students in 5 schools in the UK and Germany. Our content, which is shaped at the end of these processes, is put into use.

Environmental sustainability:

Since our system is used online, it has no negative impact on the environment in any way. Therefore, it sets an example in terms of environmental sustainability.

Details:

Our platform requires activation/login credentials. Users log in by using their username and password. We have different account types for students, teachers and parents.

When a customer would like to use our platform individually, first s/he registers by clicking the “Register” button on our website. Then the user fills in the form, and defines his/her username and password while filling in this form. When this stage is completed, we send a confirmation email. To use the free plan for trial, e-mail confirmation is not required. When the customer decides to purchase the product, s/he completes the email confirmation stage. Then s/he purchases the product through our purchase button by providing his/her email address and credit card information. When the purchase is completed s/he can start using our platform instantaneously.

When a school would like to use our platform, they request a quote according to the number of students. Generally, the teachers examine our website by using demo accounts before purchasing the product. We determine and offer the convenient price according to the number of students. After completing the purchase stage, we define the paid licences to that school as the number of students. After the licences are defined, the teacher forms the classes and then adds students to the classes one by one or as a bulk. To facilitate the usage, the username of the students are defined as their password automatically, so at first the usernames and passwords of the students are the same as default. Then if they wish, they can change it.

Installation and Support:

Our product doesn't require any installations, Codementum is a web-based education platform. It is used through our website.

There are explanations and tutorials in detail about how to use our platform. Yet, we provide training for the teacher panel if the user demands it.

We provide live support for all users within working hours. We answer their questions, we provide them with the solutions for challenges, we inform them about the usage of the platform. We also provide technical support in case of problems regarding the user.

Shortlisted summary:

Codementum is a fun and educational game environment where students learn to code in a real programming language, no previous experience needed. Thanks to Synchronized Text-based and Block-based coding system, children can switch between text and code blocks at any time.

Children can develop creative and fun Mobile Games/Apps/AI-ML Apps for IOS and Android platforms, with the help of an online trainer in both Python and JavaScript programming languages.

Codementum provides all the curriculum, intuitive tools, and resources to run a successful CS program.

Coding Curriculum: With Codementum's Teacher Kit, everyone can easily teach the basics of computer science.

Real Programming Language: They learn how to code in the Python and JavaScript languages which are used frequently in real software projects.

Game-based Learning: Our interactive learning platform allows kids to progress at their own pace and seamlessly transition to text languages like JavaScript and Python.

No previous experience in coding required: Codementum is designed as a classroom resource with fully-guided lesson plans. With our Teacher Dashboard, both time and effort is saved when monitoring the students' progress.

Introduce your children to coding by playing a fun and intuitive game. Develop your kids skill set and prepare them for the future!

Roadmap:

