eLearning Platform

15IT304J-Web Programming-Project Report

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In partial fulfillment of the requirements for the degree of

BACHELOR OF TECHNOLOGY

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

FACULTY OF ENGINEERING AND TECHNOLOGY

SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

KATTANKULATHUR- 603 203

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Introduction

"Online education is an electronically supported learning that relies on the Internet for teacher/student interaction and the distribution of class materials." From this simple definition comes an almost infinite number of ways to teach and learn outside of traditional classrooms and away from college campuses. With online education, students can turn anywhere with Internet access and electricity into a classroom. It can include audio, video, text, animations, virtual training environments and live chats with professors. It's a rich learning environment with much more flexibility than a traditional classroom. When used to its full potential, online education has been shown to be more effective than pure face-to-face instruction. It can be engaging, fun and tailored to fit almost anyone's schedule.   With courses available in almost every subject, and flexible timetables to suit almost every lifestyle, students are increasingly turning to online learning as a viable alternative to on-campus study.

For our project, we built a website which offers a platform for students for online learning through various courses offered by different universities. It helps students to develop their education and career prospects. The website offers courses in the fields of arts and humanities, business, computer science, health, maths and social sciences. Our website contains the features of registering a new member, login to maintain separate profiles for each user, enrol and unenroll from a course.

System requirements and architecture

FrontEnd -

- HTML
  - HTML stands for Hyper Text Markup Language
  - HTML is the standard markup language for creating Web pages
  - HTML describes the structure of a Web page
  - HTML consists of a series of elements
  - HTML elements tell the browser how to display the content
  - HTML elements label pieces of content such as "this is a heading", "this is a paragraph", "this is a link", etc.

- CSS -
  - CSS stands for Cascading Style Sheets
  - CSS describes how HTML elements are to be displayed on screen, paper, or in other media
  - CSS saves a lot of work. It can control the layout of multiple web pages all at once
  - External stylesheets are stored in CSS files

- JavaScript -
  - a scripting or programming language that allows you to implement complex features on web pages
  - enables you to create dynamically updating content, control multimedia, animate images, and pretty much everything else
  - dynamically modify HTML and CSS to update a user interface, via the Document Object Model API

BackEnd -

1. Php -

- PHP is an acronym for "PHP: Hypertext Preprocessor"
- PHP is a widely-used, open source scripting language
- PHP scripts are executed on the server
- PHP is free to download and use

2. SQl -

- SQL can execute queries against a database
- SQL can retrieve data from a database
- SQL can insert records in a database
- SQL can update records in a database
- SQL can delete records from a database
- SQL can create new databases
- SQL can create new tables in a database
- SQL can create stored procedures in a database
- SQL can create views in a database
- SQL can set permissions on tables, procedures, and views

3. Xampp

For Hosting our website, xampp was used, XAMPP is a free and open-source cross-platform web server solution stack package developed by Apache Friends, consisting mainly of the Apache HTTP Server, MariaDB database, and interpreters for scripts written in the PHP and Perl programming languages. Since most actual web server deployments use the same components as XAMPP, it makes transitioning from a local test server to a live server possible.

Module Description

1. Login and Sign up -

The Sign up Module allows users to register their details in the website. The signup module uses php and sql as backend where first it takes in the details from the form and the check if the user already exists if not, it creates a new entry in the table

The Login Module allows users to track the progress of the courses and tells them the courses they have enrolled and not enrolled from. The module first takes in the email and the password, then it checks if a user with that email exists and if that is successful then it compares and password provided in the form and with the one saved in the database

2. Enroll and Un-enroll -

The Enroll module allows users to enroll for a course. It first checks if the user is already enrolled for the course and if not then it gives the user the option to enroll and when enroll is clicked an entry is made in the database.

The Un-Enroll module helps users unenroll from a particular course. When unenroll is clicked the entry of the course is deleted from the database and the option to enroll is presented again.

3. Home Page

The home is mainly divided into three sections, namely header, body and footer. The header is again divided into two sub categories - top header and bottom header. The top header section contains the contact details and the follow up links of the social media. The bottom header has the navigation tabs from which the user can access different pages linked to them.

The body frame is a workspace where the information and the content is displayed. Under the body section, there's a horizontal division that shows the analytics of the users who had accessed the site and other information about the site. It included numbers indicating success stories, dedicated tutors, scheduled events and available courses. It also mentions the popular courses section. Those courses which are highly rated and have the highest number of views are considered to be displayed under this section. It always has the section for the upcoming events. Currently the division section contains 3 upcoming events with their dates and timings. When the number of events would be more than three, either those courses would be added in a vertical manner or in a horizontal manner with a slider effect.

The footer on the other hand is divided into three vertical sections. It contains company address, contact number and email support.

4. Course Page

The course page is a comprehensive collection of all the required information about the course. The ratings and university offering the course are displayed on the top of the page along with the stars based on the ratings from previous users. The main It consists of three tabs namely description, curriculum and reviews. The description tab gives brief information about the course and it's instructors. We have used media elements to attach a demo for the course. The curriculum tab provides the syllabus and an overview of the weekly topics covered in the course. Each week has some video lectures, reading materials and could have a quiz. The reviews tab consists of people's comments and ratings for the course.

Along with this, we have used the 'aside' tag to show the main important features such as the duration of the course, number of lectures and quizzes in total, pass percentage and the number of retakes allowed per user for the final exam. We have also provided a picture of the certificate for successfully completing the course.

Implementation

```php
<?php

session_start();

?>
<main>
<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <meta name="description" content="">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
      <meta name="viewport" content="width=device-width, initial-scale=1,
shrink-to-fit=no">

    <!-- Title -->
    <title>eLearning Hub</title>

    <!-- Stylesheet -->
    <link rel="stylesheet" href="style.css">

</head>

<body>
    <!-- Preloader -->
    <div id="preloader">
        <div class="spinner"></div>
    </div>

    <!-- ##### Header Area Start ##### -->
    <header class="header-area">

        <!-- Top Header Area -->
```

```html
                <div class="top-header-area  d-flex  justify-content-between
align-items-center">
            <!-- Contact Info -->
            <div class="contact-info">
                    <div class="single-cool-facts-area text-center mb-100
wow fadeInUp" data-wow-delay="250ms">
                        <div class="icon">
                            <img src="img/core-img/docs.png" alt="">
                        </div>
                        <h2><span class="counter">803</span></h2>
                        <h5>Success Stories</h5>
                    </div>
                </div>

                <!-- Single Cool Facts Area -->
                <div class="col-12 col-sm-6 col-lg-3">
                    <div class="single-cool-facts-area text-center mb-100
wow fadeInUp" data-wow-delay="500ms">
                        <div class="icon">
                            <img src="img/core-img/star.png" alt="">
                        </div>
                        <h2><span class="counter">32</span></h2>
                        <h5>Dedicated Tutors</h5>
                    </div>
                </div>

                <!-- Single Cool Facts Area -->
                <div class="col-12 col-sm-6 col-lg-3">
                    <div class="single-cool-facts-area text-center mb-100
wow fadeInUp" data-wow-delay="750ms">
                        <div class="icon">
                            <img src="img/core-img/events.png" alt="">
                        </div>
                        <h2><span class="counter">20</span></h2>
                        <h5>Scheduled Events</h5>
                    </div>
                </div>
```

```html
                    <!-- Single Cool Facts Area -->
                    <div class="col-12 col-sm-6 col-lg-3">
                        <div class="single-cool-facts-area text-center mb-100
wow fadeInUp" data-wow-delay="1000ms">
                            <div class="icon">
                                <img src="img/core-img/earth.png" alt="">
                            </div>
                            <h2><span class="counter">15</span></h2>
                            <h5>Available Coursess</h5>
                        </div>
                    </div>
                </div>
            </div>
        </section>
        <!-- ##### Cool Facts Area End ##### -->


        <!-- ##### Popular Courses Start ##### -->
            <section class="popular-courses-area section-padding-100-0"
style="background-image: url(img/core-img/texture.png);">
            <div class="container">
                <div class="row">
                    <div class="col-12">
                        <div class="section-heading">
                            <h3>Popular Online Courses</h3>
                        </div>
                    </div>
                </div>

                <div class="row">
                    <!-- Single Popular Course -->
                    <div class="col-12 col-md-6 col-lg-4">
                        <div class="single-popular-course mb-100 wow fadeInUp"
data-wow-delay="250ms">
                            <img src="img/bg-img/ml.jpg" alt="">
                            <!-- Course Content -->
                            <div class="course-content">
```

```html
                        <h4>Introduction to Machine learning</h4>
                        <div class="meta d-flex align-items-center">
                            <a href="#">Sarah Parker</a>
                                <span><i class="fa fa-circle"
aria-hidden="true"></i></span>
                            <a href="#">Art &amp; Design</a>
                        </div>
                        <p>This course will provide you a foundational
understanding of machine learning models (logistic regression, multilayer
perceptrons, convolutional neural networks) as well as
        </div>
    </section>


    <!-- ##### Footer Area Start ##### -->
    <footer class="footer-area">
        <!-- Top Footer Area -->
        <div class="top-footer-area">
            <div class="container">
                <div class="row">
                    <div class="col-12">
                        <center>

                <table style="width:70%; color:white">
                    <tr>
                        <th>Company Address</th>
                        <th>Contact Number</th>
                        <th>Email</th>
                    </tr>
                    <tr>
                        <td>ABC Street, </td>
                        <td>+91 123 456 7891</td>
                        <td>info@elearn.com</td>
                    </tr>
                    <tr>
                        <td>New Town, India</td>
                        <td>+91 123 456 7891</td>
                        <td>support@elearn.com</td>
```

```html
                    </tr>

                </table>
                </center>
                    </div>
                </div>
            </div>
        </div>


        <!-- Bottom Footer Area -->
            <div class="bottom-footer-area d-flex justify-content-between
align-items-center">
                <div class="contact-info">
                    <a href="#"><span>Phone:</span> +91 928 958 98560</a>
                    <a href="#"><span>Email:</span> info@elearn.com</a>
                </div>
                <!-- Follow Us -->
                <div class="follow-us">

    <!-- ##### Upcoming Events Start ##### -->
     <section class="upcoming-events section-padding-100-0">
        <div class="container">
            <div class="row">
                <div class="col-12">
                    <div class="section-heading">
                        <h3>Upcoming events</h3>
                    </div>
                </div>
            </div>

            <div class="row">
                <!-- Single Upcoming Events -->
                <div class="col-12 col-md-6 col-lg-4">
                    <div class="single-upcoming-events mb-50 wow fadeInUp"
data-wow-delay="250ms">
                        <img src="img/bg-img/ml.jpg" alt="">
                            <img src="img/bg-img/m2.jpg" alt="">
```

```html
                <img src="img/bg-img/ml.jpg" alt="">
                    <img src="img/bg-img/m2.jpg" alt="">
                    <!-- Course Content -->
                    <div class="course-content">


                        <div class="date">
                            <p><i class="fa fa-clock"></i> August 26 @
9:00 am</p>
                        </div>
                        <div class="events-fee">
                            <a href="#" class="free">fre</a>
                        </div>
                    </div>
                </div>
            </div>

    <!-- ##### All Javascript Script ##### -->
    <!-- Bootstrap js -->
    <script src="js/bootstrap/bootstrap.min.js"></script>
    <!-- All Plugins js -->
    <script src="js/plugins/plugins.js"></script>
    <!-- Active js -->
    <script src="js/active.js"></script>
</body>

</html>
</main>
```
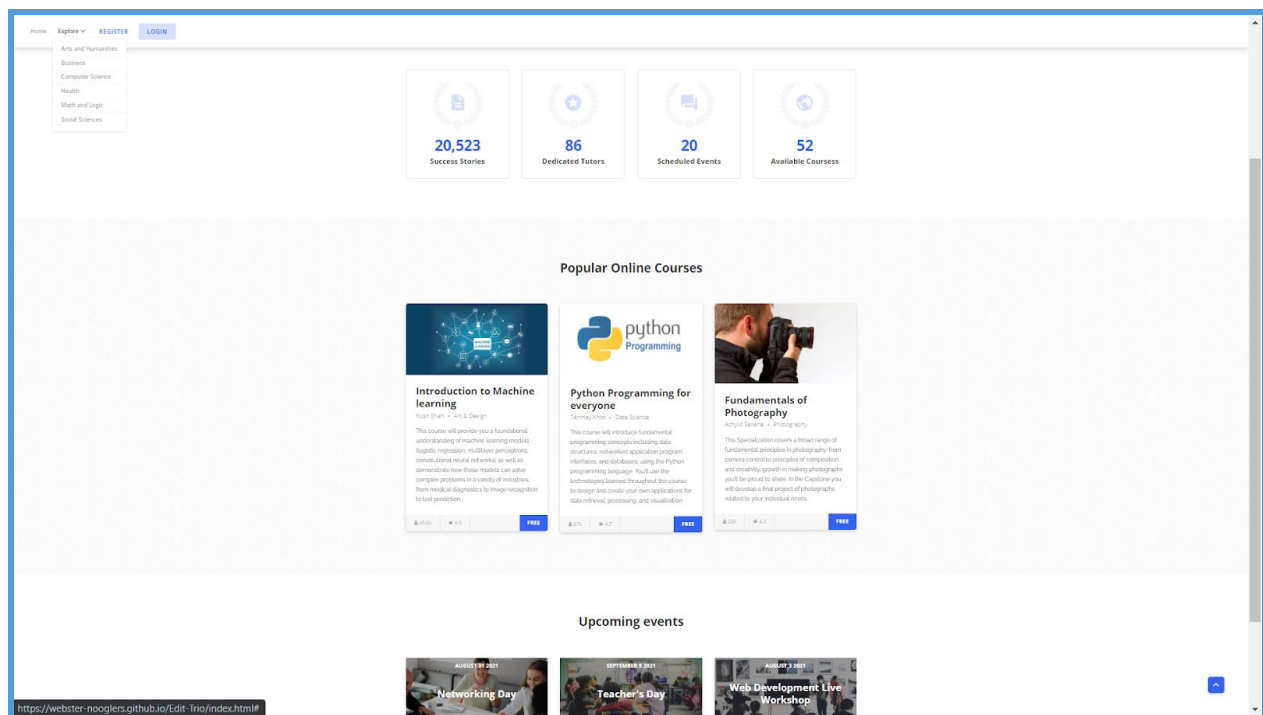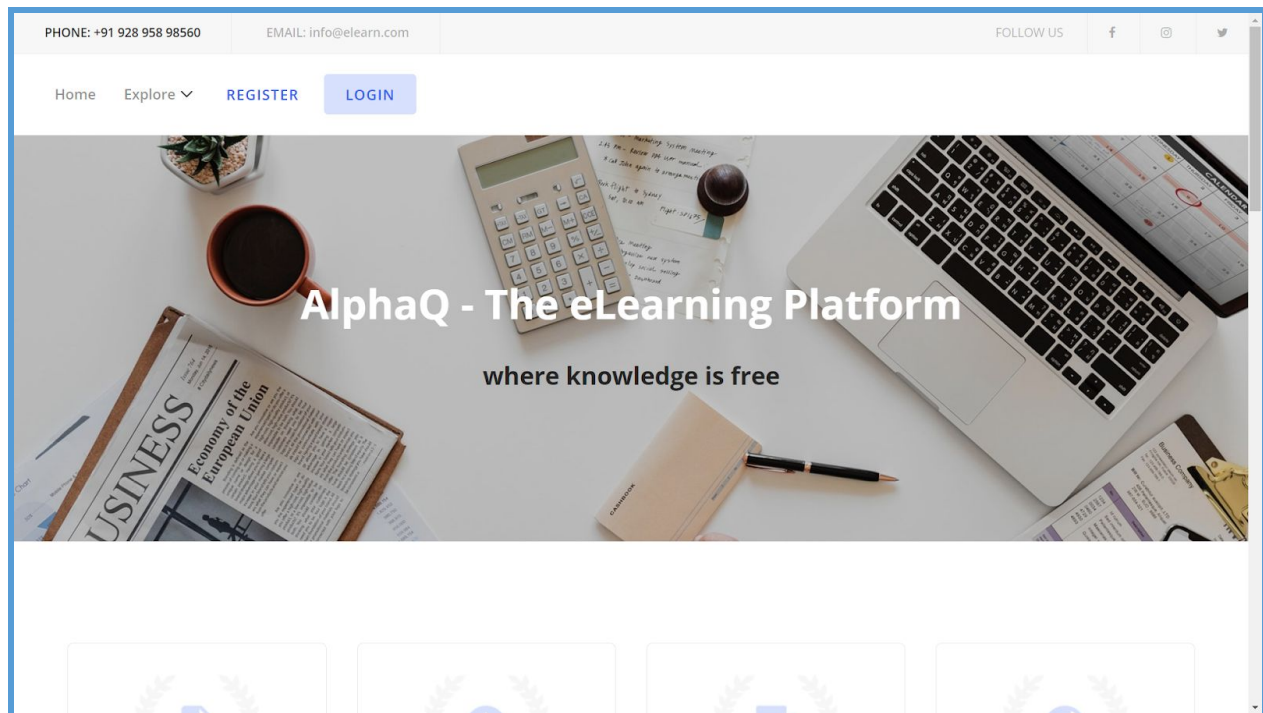
Screenshots

Upcoming events

AUGUST 31 2021

Networking Day

August 26 2021 @ 9:00 am   FREE

SEPTEMBER 5 2021

Teacher's Day

September 5 2021 @ 9:00 am   FREE

AUGUST 3 2021

Web Development Live Workshop

September 10 2021 @ 10:00 am   FREE

Company Address
ABC Street,
New Town, India

Contact Number
+91 123 456 7891
+91 123 456 7891

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support@elearn.com

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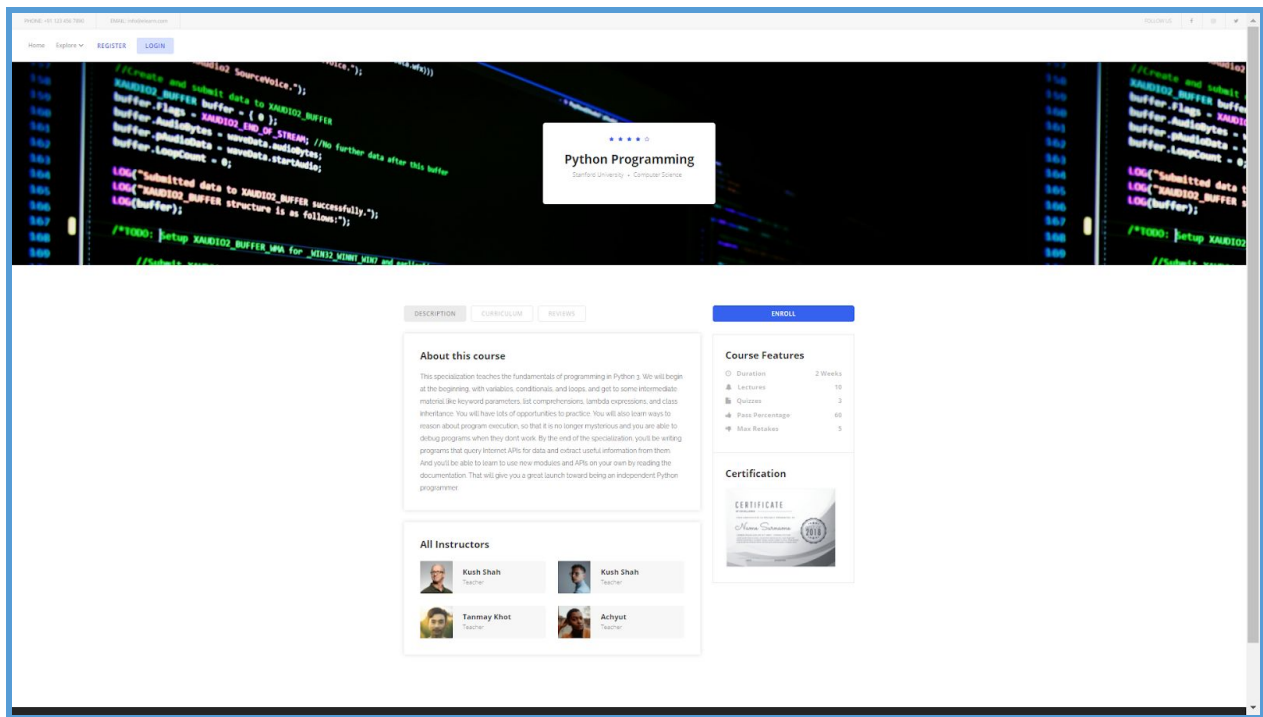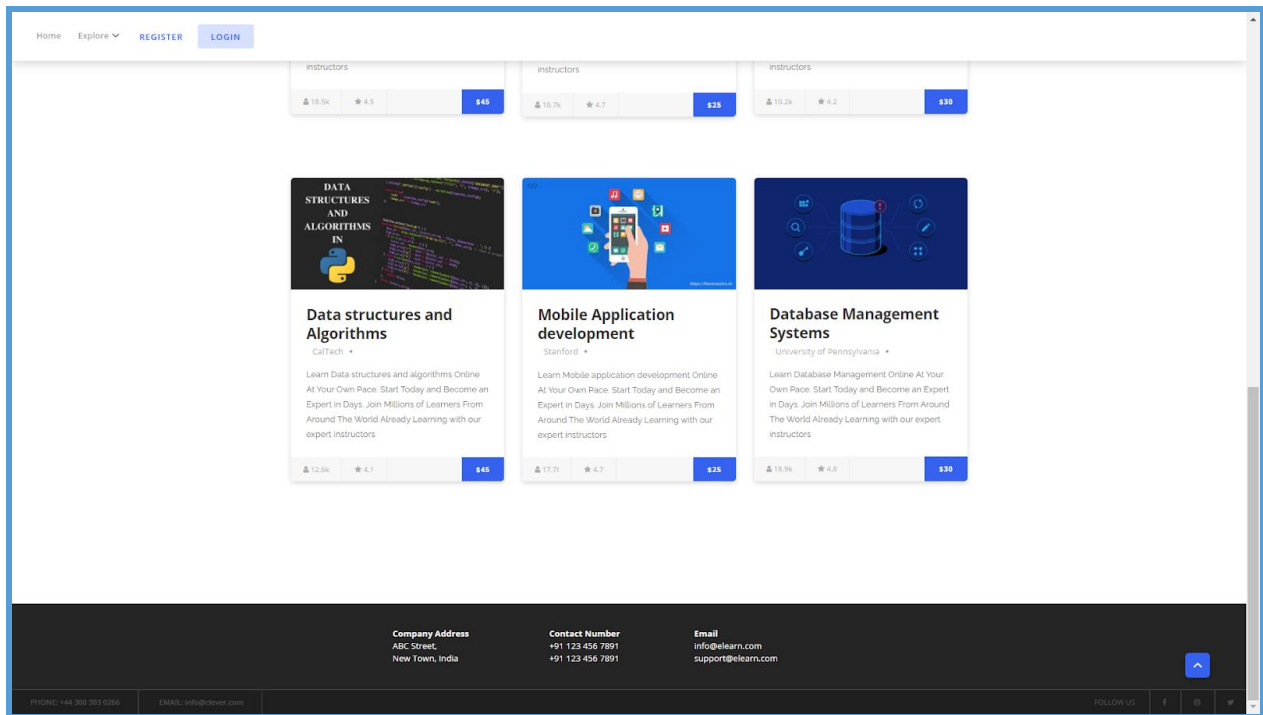
👤 20.3k   ★ 4.8   FREE

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👤 6.3k   ★ 4.6   FREE

instructors

🧑 18.5k   ★ 4.5 $45

instructors

🧑 10.7k   ★ 4.7 $25

instructors

🧑 10.2k   ★ 4.2 $30

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🧑 12.6k   ★ 4.1 $45

Mobile Application development

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🧑 17.7t   ★ 4.7 $25

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🧑 18.9k   ★ 4.8 $30

Company Address
ABC Street,
New Town, India

Contact Number
+91 123 456 7891
+91 123 456 7891

Email
info@elearn.com
support@elearn.com

PHONE: +44 388 383 0266   EMAIL: info@clever.com   FOLLOW US   f 📷 🐦

★ ★ ★ ★ ☆

Python Programming

Stanford University • Computer Science

DESCRIPTION   CURRICULUM   REVIEWS

ENROLL

About this course

This specialization teaches the fundamentals of programming in Python 3. We will begin at the beginning, with variables, conditionals, and loops, and get to some intermediate material like keyword parameters, list comprehensions, lambda expressions, and class inheritance. You will have lots of opportunities to practice. You will also learn ways to reason about program execution, so that it is no longer mysterious and you are able to debug programs when they don't work. By the end of the specialization, you'll be writing programs that query Internet APIs for data and extract useful information from them. And you'll be able to learn to use new modules and APIs on your own by reading the documentation. That will give you a great launch toward being an independent Python programmer.

Course Features

🕐 Duration   2 Weeks
📚 Lectures   10
📄 Quizzes   3
✅ Pass Percentage   60
➡ Max Retakes   5

Certification

CERTIFICATE

2018

All Instructors

Kush Shah
Teacher

Kush Shah
Teacher

Tanmay Khot
Teacher

Achyut
Teacher

Syllabus

This specialization teaches the fundamentals of programming in Python 3. We will begin at the beginning, with variables, conditionals, and loops, and get to some intermediate material like keyword parameters, list comprehensions, lambda expressions, and class inheritance. You will have lots of opportunities to practice. You will also learn ways to reason about program execution, so that it is no longer mysterious and you are able to debug programs when they don't work. By the end of the specialization, you'll be writing programs that query Internet APIs for data and extract useful information from them. And you'll be able to learn to use new modules and APIs on your own by reading the documentation. That will give you a great launch toward being an independent Python programmer.

Week 1   0/4

Beginners Level

The Python dictionary is one of its most powerful data structures. Instead of representing values in a linear list, dictionaries store data as key / value pairs.

📄 10 video, 15 audio, 6 reading

Course Features

🕐 Duration   2 Weeks

🔔 Lectures   10

📄 Quizzes   3

👍 Pass Percentage   60

👎 Max Retakes   5

Certification

Week 1   0/4

Beginners Level

The Python dictionary is one of its most powerful data structures. Instead of representing values in a linear list, dictionaries store data as key / value pairs.

📁 10 video, 15 audio, 6 reading

📹 Video: Python Basic Data Structures   ⏱ 105 minutes

📄 Reading: Reference Materials   ⏱ 95 minutes

🔊 Audio: Python problem case studies   ⏱ 35 minutes

🎓 Graded: Cumulative Language Quiz   3 Questions

Week 2   0/5

Intermediate Level

Starting with lists we will store many values in a single variable using an indexing scheme to store, organize, and retrieve different values from within a single variable.

📁 12 video, 14 audio, 9 reading

📹 Video: Greetings and Introductions   ⏱ 115 minutes

📄 Reading: Reference Materials   ⏱ 45 minutes

🔊 Audio: Advanced Python problem case studies   ⏱ 35 minutes

🎓 Graded: Cumulative Language Quiz   10 Questions

DESCRIPTION   CURRICULUM   REVIEWS   ENROLL

Reviews

This course is absolutely amazing. The best part is quick Q&A support in the alloted timings. Also the course structure is well organized.

4.5

★ ★ ★ ★ ☆

Rated 4.8 out of 500 Ratings

5 STARS		80%
4 STARS		20%
3 STARS		0%
2 STARS		0%
1 STARS		0%

Kush Shah   ★ ★ ★ ★ ★
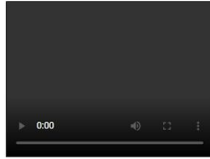Sep 29, 2017 at 9:48 am

The course was really satisfactory and organized. I would refers my other colleagues to definitely give it a try.

Course Features

⏱ Duration   2 Weeks
🔔 Lectures   10
📄 Quizzes   3
👍 Pass Percentage   60
👎 Max Retakes   5

Certification

CERTIFICATE
OF EXCELLENCE

Name Surname

2018

programs that query Internet APIs for data and extract useful information from them. And you'll be able to learn to use new modules and APIs on your own by reading the documentation. That will give you a great launch toward being an independent Python programmer.

Learn Python - Full Course for Begi...

Certification

CERTIFICATE
OF EXCELLENCE

Name Surname

2018

All Instructors

	Kush Shah		Kush Shah
	Teacher		Teacher

Conclusion and Future work

The majority of the technical development has been covered for the eLearning Platform. The user can now enroll oneself on the platform and can access the course sections. There are various course sections and domains involved with all courses available for free of cost as our motto is to provide free education to each and every citizen. The platform is easy to access with mindful UX designs. The user can see the description of the course before starting. One can also see the reviews provided for the course along with the star ratings. This gives the user a broader view about the course quality and content can be viewed from the Curriculum section.

Probing deeper, the results in this project also provide a strong foundation for future work and more security features. One area of future work is in storing the progress data of the user in their individual accounts. Such that the user can start the course from the point where they left the course the last time. Another area is in applying the analytics of the user traffic on the website using a dashboard to accommodate the interests of the users. The section for the admin to add the courses will also be added.

References

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