

# Coding and Web Fundamentals

Welcome to the RocketU 'Coding and Web Fundamentals' online course.

The next few slides will give an introduction to the course and your instructor.

Have fun, and if you have any questions then just ask.

Confidential

## Your Instructor

Your instructor for this course is Nick Roper.

Nick is based in the UK and has written and presented IT training courses covering database, coding and web development to a range of audiences for nearly 25 years.

Nick has worked with the web in various capacities since it first appeared in 1993 – both as a trainer and a developer.

If you have any questions at all then you can contact Nick as follows:

- Email: [nroper@rocket-space.com](mailto:nroper@rocket-space.com)
- Skype: [nick.roper](https://www.skype.com/people/nick.roper)

# The Webex Training Platform

First of all we will take 10 minutes to get familiar with some of the features of the Webex training platform.

In particular we will discuss the following:

- ▣ Desktop sharing
- ▣ Slides and materials
- ▣ Real-time chat
- ▣ Quizzes
- ▣ Annotation
- ▣ Recordings
- ▣ Asking questions



## Webex – Desktop Sharing

The instructor will share their desktop with you in order to present slides, demonstrate coding techniques and review documents and relevant resources online.

Immediately after the instructor shares their desktop you will see the desktop appear and also an icon bar will be displayed.

You will need to select the 'Attendees' and 'Chat' icons so that the associated windows are displayed for your use.

The instructor will demonstrate the use of these with you.



## Webex – Realtime Chat

Once you have selected the 'Chat' icon from the toolbar a chat panel will be displayed:

You can use this panel to chat with the instructor.

Your instructor will discuss this in more detail with you at this point.

If you enter something into the chat area but you don't receive a reply then try clicking the hand icon next to your name. This will give the instructor an audible prompt that someone is trying to get their attention.

## Webex – Quizzes

In addition to the slides there will be short Quizzes every so often on the topics that are presented.

The instructor will display the quiz questions on their desktop and then wait for everyone to submit their answers.

The quizzes are not meant as tests but are there to help you reinforce your knowledge and understanding.

The answers will be discussed and any questions answered before moving on.

## Webex – Annotation

The Webex platform incorporates annotation tools that the instructor can use.

These include the ability to highlight or underline text on the slides, add additional text notes and create simple diagrams.

Your instructor will demonstrate the use of annotations at this point.



## Webex – Recordings

Each module and session of the course will be recorded as it is presented. The recording will incorporate all audio and visual components as well as a history of all chat conversations.

Recordings will be paused whenever a break is taken and resumed thereafter.

The recordings will be available within an hour of a session finishing and you will receive an email with a link to use in order to access each recording. They will remain available for 5 business days following the course.

Please do not pass the URLs for the recordings on to other people – they are for the exclusive use of registered students only.



# Self Study and Research

In addition to the online sessions you will be expected to spend time on self-study and research during the two week period.

Your instructor will provide details of reference materials and topics as the course progresses.

These details will also be uploaded to Basecamp.



# Exercises and Labs

- In addition to quizzes that are presented during sessions you will also be given exercises and labs to work on.
- **Exercises** are carried out individually and usually take no more than 5–10 minutes. The instructor will talk through the exercise and then pause the interactive session whilst students complete it. After the allotted time the instructor will resume the interactive session and provide feedback on the exercise and answer any questions.
- **Labs** are normally carried out outside the online sessions and will be more substantial and require more time. Labs may build on each other over a number of topics.



# Times and Breaks

The start and end times of each session will have been notified to you prior to the start of the online course.

Your instructor will confirm these with you now and will also discuss procedures for taking breaks.

Please make sure that you are logged on and ready to start in good time each day.

If you know that you are not going to be able to attend a particular session, or that you might be late joining, then please let the instructor know in advance to avoid delays to start times whilst waiting for you.



# Course Format

The instructor will share their desktop and use the slides to introduce topics.

The slides are not meant to be exhaustive but focus on key points – you are encouraged to use other resources for additional reference. Your instructor will provide suggestions for these resources and they will also be referenced at the end of each module.

After introducing a topic and discussing the key points the instructor will give a demonstration where appropriate.

Demonstrations will be followed by short 'hands on' sessions to allow you to try the techniques yourself and there will also be more substantial exercises and labs for you to complete in your own time in order to reinforce your understanding.



# Asking Questions

We encourage students to ask questions whenever they want. Don't wait until a break or the end of a session as you may forget to ask.

Submit your question via the chat panel.

If you think the instructor hasn't seen the question then click the hand icon next to your name.

Remember – **there is no such thing as a 'stupid question'!**

Your instructor will also be available via email or Skype between sessions to answer questions or provide assistance.



# Topics

The course will cover the following topics

- ▣ Web Fundamentals
- ▣ HTML
- ▣ CSS
- ▣ Coding Basics
- ▣ Javascript
- ▣ jQuery

We will discuss each of these more over the next few slides



# Topics – Web Fundamentals

- The topics in the **Web Fundamentals** modules include:
  - ▣ Overview of the Web
  - ▣ Building blocks – HTML, CSS & Javascript
  - ▣ Browsers and Servers
  - ▣ Web Standards and Validation
  - ▣ Hosting and Virtual Hosting
  - ▣ Requests and responses
  - ▣ TCP/IP and HTTP



# Topics – HTML

- The topics in the **HTML** modules include:
  - ▣ Overview of HTML
  - ▣ HTML elements, tags and attributes
  - ▣ Doctypes and the DOM
  - ▣ Formatting
  - ▣ Headings, lists and links
  - ▣ Forms
  - ▣ Tables



Introduction to HTML5



# Topics – CSS

- The topics in the **CSS** modules include:
  - ▣ Overview of CSS
  - ▣ Stylesheets and the CSS cascade
  - ▣ CSS rules, selectors and declarations
  - ▣ Text, colours and backgrounds
  - ▣ Margins and padding
  - ▣ Layout and positioning
  - ▣ Specificity and media types



Introduction to CSS3

17

# Topics – Coding Basics

- The topics in the **Coding Basics** module include:
  - ▣ Programs and scripts
  - ▣ Statements and expressions
  - ▣ Comments
  - ▣ Variables and data types
  - ▣ Conditional structures
  - ▣ Looping structures
  - ▣ Functions



18

# Topics – Javascript

▣ The topics in the **JavaScript** modules include:

- ▣ Introduction to Javascript
- ▣ Internal and external scripts
- ▣ Core syntax
- ▣ Statements and operators
- ▣ Variables, data types and scope
- ▣ Conditional and looping structures
- ▣ Functions and scope



Interaction with web pages via the DOM and CSS

19

# Topics – jQuery

▣ The topics in the **jQuery** modules include:

- ▣ Introduction to jQuery
- ▣ Installing and linking jQuery
- ▣ The jQuery object
- ▣ Using jQuery selectors
- ▣ Animation with jQuery – hide and show
- ▣ Getting and setting attributes and data
- ▣ jQuery and CSS



20

# Course Objectives

- After completing this course you will:
  - ▣ Understand the way that the Web and web pages work
  - ▣ Be familiar with fundamental browser and server concepts
  - ▣ Understand web standards and validation
  - ▣ Be able to use HTML and CSS to create well formatted web pages from scratch
  - ▣ Be able to use JavaScript and jQuery to incorporate basic animations and dynamic elements in web pages
  - ▣ Understand basic coding principles and structures



# Questions

Do you have any questions before we move on to the next module

?

Don't worry, if you think of something later then just ask!

