15 mins

Task 1: Programming Languages

The world of programming can seem very complex; there are a huge amount of languages, terminology and features embedded within the industry – sometimes it can be difficult to get a grasp of it all!

Watch the following video from CodeAcademy to understand more about programming languages, and how there is no 'one size fits all' approach to learning a new language:

Which programming language should I use? - CodeAcademy

2.5 hours

Task 2: Creating your own encyclopedia page

Content Research

During this week's session we created an encyclopedia page on dolphins, incorporating each HTML *element* as it was discussed and explained. Now, it's your turn to put those skills into practice.

To start, you'll need to research your chosen subject: this could be an animal, a car, a technological device, a person – whichever you prefer!

You'll need to find enough content to use in your own encyclopedia page. Remember, less can sometimes mean more – users do not want to get 'bogged down' with lots and lots of text.

Use the space on the next page to record all the information you want to include on your page.

This should include:

- Key summary
- Headings
- Images
- Videos
- Links to further information

TITLE - H1: Dinosaurs

Description - P:

¿Te imaginas poder viajar en el tiempo y aterrizar en nuestro planeta tal y como era millones de años atrás? Bienvenido a la mejor web de información sobre los dinosaurios prehistóricos que existe en la red. Nuestro objetivo es convertirnos en la mejor y más completa enciclopedia de dinosaurios en Internet. ¡Deja de imaginar y acompañanos en este viaje a la prehistoria...

H2: Key Facts

UL-LI:

- Los primeros dinosaurios de la prehistoria vivieron hace unos 245 millones de años.
- Hace 65 millones de años «algo» ocurría en nuestro planeta que conllevó la extinción de estos seres y el comienzo de la era Cenozoica.
- Según un estudio de 2006, de Steve Wang y Peter Dodson, en aquel momento, había contabilizadas 527 especies.

H2 - Type of Dinos

H3

>> Segun alimentacion

- carnivoros
- Herbivoros
- Omnivoros

>> segun su naturaleza

Terrestres

Marinos

Voladores

H3 – Trailers pelis/documentales mas famosas

https://www.youtube.com/watch?v=JLKyug3a3d0&list=PL50KW6aT4Ugx6C3hr36Onjvwv6NO723gI

https://www.youtube.com/watch?v=jzPoUkBNXdU&list=PL50KW6aT4Ugx6C3hr36Onjvwv6NO723gl&index=2 https://www.youtube.com/watch?v=fb5ELWi-ekk

H3 Further information: Dinos museums uk - LINK

Creating HTML page

Now we have a collection of content, we can begin creating our HTML page.

In **VS Code**, create a new folder titled 'Week 1'. This way all your pages will be organized and well structured. You will then need to initiate the document (saved as index.html) using **<!DOCTYPE html>, <html> and <head> tags**. You can also create a title for the page using the **<title>** tags. Remember to use the correct indentation, as per **W3C standards**.

Once complete, copy your code into the box below.

```
<!DOCTYPE html>
<html lang="eng">
<head>
<title> Dinopedia! </title>
<link rel="icon" href="images/dino-Icon.jpg">
</head>
<body>
</body>
</html>
```

Headings and Structure

You are now ready to begin organizing and structuring your content onto your web page. Use a heading and a list to structure your web page. Here's an example from the session:

Once complete, copy your code into the box below.

```
<h1>Dolphins</h1>

Introduction
Habitat
Media
```

Adding text

You can now begin adding your text onto your web page. Remember to use the <div> element to separate your content (this will become particularly useful when we move onto CSS!). You should use:

- An ordered list
- Variety of headings <h1> to <h6>
- Divisions for each section <div>

Once you have your layout and text implemented, copy the code into the box below.

```
<h1>Dinopedia!</h1>
⊰Te imaginas poder viajar en el tiempo y aterrizar en nuestro planeta tal y como era millones de años atr
chr> Bienvenido a la mejor web de información sobre los dinosaurios prehistóricos que existe en la red.
Nuestro objetivo es convertirnos en la mejor y más completa enciclopedia de dinosaurios en Internet.
iDeja de imaginar y acompañanos en este viaje a la prehistoria... 
<h2>Key Facts</h2>
    Dinosaurs were around millions of years ago!
    There were more than 700 species.
    The word dinosaur came from an English palaeontologist.
    <li>>Tyrannosaurus Rex was the most ferocious dinosaur.
    Lizards, turtles, snakes and crocodiles all descend from dinosaurs.
<h2>Type of Dino s</h2>
  By food
      Carnivore
      Herbivore
      Omnivorous
  By habitat
      TerrestrialMarine
      Flying
```

Media content

Now we're ready to start implementing some media content into our website. You can either use local or remote content for this: a reminder that local content should be stored in the same folder as your website (Session 1). The tag has a required attribute called src: this is the location of the image. You should also define the size of the image using both width= and height=, as well as providing an alt tag in case the user is using a screen reader, or is unable to load your image. For your video content, your page should display 'Video not supported' if the video is unable to be loaded.

You should include at least 5 images and 2 videos on your web page. When complete, copy the code into the box below.

```
<img src="<u>images/MainImage.jpeg</u>" alt="A very scary dino" width="1000" height="300">
 <h2>Key Facts</h2>
    <li>Dinosaurs were around millions of years ago!</li>
    There were more than 700 species.
     The word dinosaur came from an English palaeontologist.
     Tyrannosaurus Rex was the most ferocious dinosaur.
     Lizards, turtles, snakes and crocodiles all descend from dinosaurs.
   <img src="images/Dinol.webp" alt="Three T-rex going wild" width="500" height="300">
   <img src="images/Flying-dino.jpeg" alt="A flying dinosaur" width="500" height="300">
 <h2>Type of Dino s</h2>
   By food
      Carnivore
      Herbivore
      Omnivorous
     By habitat
      Terrestrial
      Marine
      Flying
 <h2>Best Dinosaurs Movies</h2>
 <iframe width="500" height="320" src="https://www.youtube.com/embed/fb5ELWi-ekk" >
 </iframe>
<iframe width="500" height="320" src="https://www.youtube.com/embed/JLKyug3a3d0" >
</iframe>
```

Interactivity

Great – now we're ready to add some interactivity. You should now add a 'More Information' link that directs the user to the Wikipedia page for your chosen subject using the *href* attribute (hyperlink reference); this should be used in conjunction with the target attribute to open the link in a new window/tab.

```
Bottlenose Dolphin
<a target=_blank href="https://en.wikipedia.org/wiki/Bottlenose_dolgonial-
<li>Amazon River Dolphin
Ganges River Dolphin
```

We can also turn nearly any element into a link by wrapping that element with an anchor element. Turn one of your images into a link to an external page of your choosing.

Once you have completed this step, copy the code into the box below.

```
<div>
<h4>We hope you learnt a lot about dinos, but click below for more info</h4>
<a href="https://en.wikipedia.org/wiki/Dinosaur" target="_blank">More Information</a>
</div>
<a href="https://www.nationalgeographic.com/science/article/billions-of-t-rex-likely-roamed-the-earth" target="_blank">
<img src="images/Dino1.webp" alt="Three T-rex going wild" width="500" height="300">
</a>
```

Branching out

We're now ready to branch out from our single web page. In your folder, create 2 additional HTML pages – these can be titled as you wish. On your index.html page, create links to these two pages. These two new pages need to have some content on them, so you may wish to move some from your home page or add new information – it's up to you!

Reminder: When linking to files within the same folder you can use a relative path e.g. Contact.

Once you have completed this step, copy the code into the box below.

```
<!DOCTYPE html>
∨ <html lang="en">
   <meta charset="UTF-8">
   <meta http-equiv="X-UA-Compatible" content="IE=edge">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>Dinopedia</title>
   <link rel="icon" href="images/dino-Icon.jpg">
   <a id="top"></a>
   <div id="intro
    <h1>Britain s best places to see: Dinosaurs and fossils</h1>
     Before humans, dinosaurs ruled the world, prowling the land, sea and air for around 165 million years.
      Here's our pick of some of the best museums to see these spectacular creatures and spark your imagination, in no particular order...
   <div id="museums-container">
     <div id="museum">
       <a href="https://museumcrush.org/todo/?item_id=EM000067" target="_blank">
         <h2>New Walk Museum</h2>
         <h3>Leicester</h3>
       <img src="images/leicester-pic.jpeg" alt="Dino Skeleton Leicester" width="500" height="300">
       The impressive Rutland Dinosaur, a Cetiosaurus oxoniensis, takes centre stage at the New Walk famous Dinosaur Gallery which
        is also home to some of the oldest fossils in the world. Displays include the Plesiosaur, the giant fish and the 540 million-year-old Charnia
        There are also dinosaur interactives and cutting edge reconstructions of marine reptiles.
     </div
     <div id="museum">
       <a href="https://museumcrush.org/todo/?item_id=am9765" target="_blank">
         <h2>Dinosaur Isle Museum</h2>
         <h3>Isle of Wight</h3>
       <img src="images/dinosaur-isle-1024x679.jpeg" alt="Dino Skeleton Leicester" width="500" height="300">
       The Isle of Wight is one of the richest dinosaur locations in Europe, with more than 20 species from the Cretaceous
         period found on the island. The interactive Dinosaur Isle Museum has reconstructions of five local dinos; Neovenator,
         Eotyrannus, Iguanadon, Hypsilophodon and the giant Sauropod. Displays use clever lighting, sounds, smells and animatronic
         technology to create an exciting and at times scary experience for visitors. They also lead very popular fossil walks
         throughout the year.
     <div id="museum">
       <a href="https://museumcrush.org/todo/?item_id=EM000067" target="_blank">
         <h2>Lyme Regis Museum</h2>
         <h3>Lyme Regis</h3>
       <img src="images/leicester-pic.jpeg" alt="Dino Skeleton Leicester" width="500" height="300">
       Housed in her former home, Lyme Regis Museum celebrates the pioneering fossil hunter and palaeontologist Mary Anning,
         who discovered the Ichthyosaur on the local beaches in 1811. The Geology Gallery contains a wealth of fossils and for
         the real thing you can join one of their famous fossil walks along a historic stretch of Dorset coast.
   <a href="#top">Back to top</a>
```

Linking it up

The penultimate step is to provide links to the same page; we want our users to be able to click a link on the page and automatically scroll to a specific section. This is one of the uses of the <div> tag as demoed during the session this week. An id should be used and needs to be descriptive to make it easier to remember the purpose of a link.

```
    <a href="#introduction">Introduction</a>
    <a href="#habitat">Habitat</a>
    <a href="#media">Media</a>
```

Use the <div> and id tag to implement this functionality into your site so that the user can automatically scroll to each named section.

Once you have completed this step, copy the code into the box below.

Final Prep

The final step is to have a 'clean up' of your code and make sure that it's ready for submission. You should use whitespace appropriately to make your code easy to read, as well as following the indentation guidelines as stated by W3C so that it is easy to visualise which elements are nested within other elements.

Finally, go through your code and add a range of comments (using <!--) to explain what you have added where and why. Providing commentary is a really useful way to understanding the rationale for a certain structure/layout of code and is considered good practice.

Check your website against the marking criteria to ensure you have met the minimum requirements.

Once you have completed the above steps, copy the code into the box below.

```
<title>Dinopedia</title>
link rel="icon" href="images/dino-Icon.jpg":
   <a id="top"></a>
         IN 18# INTO>

"Can you imagine being able to travel back in time and land on our planet as it was millions of years ago?

Welcome to the best information website about prehistoric dimosaurs on the web. 

<p
   div id="key-facts">
<h2>Key Facts</h2>

    AlbDinosaurs were around millions of years age!
AlbThere were more than 700 species.
AlbThe word finosaur came from an English palaeontologist.
AlbTyrannosaurus Rex was the most feroclous dinosaur.
AlbTyrannosaurus Rex was the most feroclous dinosaur.
AlbTyrannosaurus Rex was the most feroclous dinosaur.
                      Lizards, turtles, snakes and crocodiles all descend from dinosaurs.
              <img src="images/Flying-dino.jpeg" alt="A flying dinosaur" width="500" height="300">
       div id="types">
<h2>Type of Dino[s</h2>
               Anisey food</hd>
Anisey
                             cli><a href="https://www.nhm.ac.uk/discover/dino-directory/diet/carnivores/gallery.html" target="_blank">Carnivorous</a>
<a href="https://www.nhm.ac.uk/discover/dino-directory/diet/herbivores/gallery.html" target="_blank">Herbivorous</a>
<a href="https://www.nhm.ac.uk/discover/dino-directory/diet/nentwores/gallery.html" target="_blank">Gmivores</a>
</a>
                      cl>
cl>>a href="https://dinosaurios.co/dinosaurios-terrestres/" target="_blank">Terrestrial</a>
cli>>a href="https://nhm.org/press/plesiosaur" target="_blank">Marine</a>
cli>>a href="https://nhm.org/press/plesiosaur" target="_blank">Marine</a>
cli>>a href="https://nhm.nhm.ac.uk/discover/watch-a-pterosaur-fly.html" target="_blank">Flying</a>
        <!--Consider transe void to the consideration of the consideration 

<
                 <h2>Best Dinosaurs Movies</h2>
              <iframe width="500" height="320" src="https://www.youtube.com/embed/fb5ELWi-ekk" >
       <iframe width="500" height="320" src="https://www.youtube.com/embed/JLKyug3a3d0" >
      <div id="info":
              <h4>We hope you learnt a lot about dinos, but click <a href="https://en.wikipedia.org/wiki/Dinosaur" target="_blank">here</a> for more info in Wikipedia</h4>
<a href="<u>#top</u>">Back to top</a>
```

Marking criteria (Task 2)

	Pass	Merit	Distinction
Structure	 Use of < html> tag incorrectly placed <!DOCTYPE html> used correctly 	 Use of <head> and <body> tag accurately</body></head> Attempts to use the <title> tag </th><th> Multiple levels of nesting including grandchildren, great-grandchildren. <title>tag used correctly across the website </th></tr><tr><th>Elements</th><th> Use of and <h1- 6> Use of and correctly applied </th><th> <div> used correctly
throughout website with
clear sections used appropriately </th><th> Id given to <div> Href attributed used in conunction with id for autoscroll </th></tr><tr><th>Media
Content</th><th>1 image/video
correctly linked in a
HTML page</th><th> Alt defined for accessibility Multiple images/videos
correctly linked in an HTML
page Height= and width= used
proportionately </th><th> Image/video turned into a link using element wrapping Target= used correctly and functioning </th></tr><tr><th>Presentation</th><th> Some whitespace used to good effect Indentation attempted but inaccurate Correct HTML naming convention </th><th> Whitespace used appropriately, at times Indentation largely accurate </th><th> Website meets W3C standards consistently Clear commentary provided throughout Code is explicitly clean and easy to read </th></tr></tbody></table></title>	

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		u	u	

Task 3: Reverse Engineering

Now that you've honed your HTML skills you are ready to put them to the test.

Creating a Blog

A friend of yours runs an online travel blog documenting his adventures across the globe. Unfortunately, his website is hosted on his home computer and a power storm has rendered his computer unusable – and therefore his website is offline.

He managed to save some mid-development screenshots of his travel page regarding his trip to Thailand. Your task is to re-create the page using HTML. You may use any suitable images that you can find online.

by Joe Bloggs | 1 day ago

An Insider's Guide to Thailand



Thailand can be both amazingly fun & incredibly overwhelming, especially if you've never been.

Luckily, I'm here to give you an insider's guide and make your first trip a pleasurable experience.

By taking my tips and tricks, and following your gut, you'll have an unforgettable experience!

Getting Flight Tickets



Flights to Thailand can be booked relatively inexpensively, depending on the time of year.

We'd always recommend booking through British Airways - they fly direct from London 5 times a week!

The website title should be *Holiday Adventures.*

The link to Thailand in the first paragraph should direct to the Wikipedia page of Thailand.

There should be a list towards the top of the page of the sections.
These should act as links which **auto-scroll** to the corresponding part of the page.

Alt tag for Picture 1: "A sunset over the Thailand sea."

Alt tag for Picture 2: "Boats on shore in Koh Phangan."

Getting Around



Getting around Thailand isn't difficult. There is a **plethora** of public transport and travel agents who are able to provide information.

Related Content

- Koh Samui
- Koh Phangan
- Koh Lipe
- Koh Tao

email: joe@thailandforever.com | phone: 01111 555444 | address: 14 Regent Street, London, NW2 3DE

Under the heading *Related Content* each of these items should link to a corresponding page that was hosted locally. These have been lost so need to be re-created.

Alt tag for Picture 3: "Tuk Tuks in Bangkok, Thailand."

Once completed, please copy the HTML code into the box on the next page.

```
<html lang="en
 <meta http-equiv="X-UA-Compatible" content="IE=edge">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Holiday Adventures</title>
 <link rel="icon" href="images/tab-icon.png">
 <a id="top"></a>
  <h3>by Joe Bloggs | 1 day ago</h3>
 <h1>An insider s Guide to Thailand</h1>

  <div id="flights
   <h2>Getting Flight Tickets</h2>
    <lmg src="images/tailand1.jpeg" alt="Boats on shore in Koh Phangan." width="500" height="300">
Flights to Thailand can be booked relatively inexpensively, depending on the time of year.</br>
We dalways recommend booking trough British Airways - they fly direct from London 5 times a week!
    <h2>Getting Around</h2>

<
  <div id="related":
    <h4>Related Content</h4>
      <a href="./KohPhangan.html">Koh Pagan</a>
<a href="./KohLipe.html">Koh Lipe</a>
       <a href="./KohTao.html">Koh Tao
    <strong>email: </strong>joe@thailandforever.com | | strong>phone: </strong>01111 555 444 | strong>address:</strong> 14 Regent St, London, NW2 3DE
   <a href="<u>#top</u>">Back to top</a>
```

Marking criteria (Task 3)

	Pass	Merit	Distinction
Structure	 Use of < html> tag incorrectly placed <!DOCTYPE html> used correctly 	 Use of <head> and <body> tag accurately</body></head> Attempts to use the <title> tag </th><th> Multiple levels of nesting including grandchildren, greatgrandchildren. <title> tag used correctly across the website </th></tr><tr><th>Elements</th><th> Use of and <h1-6> Use of and correctly applied </th><th> <div> used correctly
throughout website with
clear sections used appropriately </th><th> Id given to <div> Href attributed used in conunction with id for auto-scroll </th></tr><tr><th>Media
Content</th><th>1 image/video
correctly linked in a
HTML page</th><th> Alt defined for accessibility Multiple images/videos correctly linked in an HTML page Height= and width= used proportionately </th><th> Image/video turned into a link using element wrapping Target= used correctly and functioning </th></tr><tr><th>Presentation</th><th> Some whitespace used to good effect Indentation attempted but inaccurate Correct HTML naming convention </th><th> Whitespace used appropriately, at times Indentation largely accurate </th><th> Website meets W3C standards consistently Clear commentary provided throughout Code is explicitly clean and easy to read </th></tr><tr><th>Accuracy</th><th>Attempts to
replicate website
from screenshots</th><th>Website is largely an accurate representation with sustained attempts at meeting written requirements</th><th>Website is accurate as per
screenshot and written
requirements</th></tr></tbody></table></title>	