

Introduction to Web and Database Concepts

Cyber Security

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TABLE OF CONTENTS

1. Introduction	3
2. Requirements	3
3. Implementation	3
3.1 Screen shots of pages.	3
3.1.1 Home Page.....	3
3.1.2 About Us	4
3.1.3 Our Services	4
3.1.4 Recent Work.....	5
3.1.5	5
3.2 Validation.....	6
3.2.1 HTML VALIDATION CHECK FEEDBACK.....	6
3.2.2 CSS VALIDATION CHECK FEEDBACK.....	6
6. Evaluation	6
6.1 Usability	6
6.2 Accessibility	6
6.3 SEO	7
6.4 Evaluation of website.....	7
6.4.1 Usefulness (usability and utility):	7
6.4.2 Search Engine Optimisation (SEO):.....	7
6.4.3 Accessibility:.....	8
7. Bibliography.....	9
8. Appendices.....	10
8.1 Index.html	10
8.2. About us.....	12
8.3 Services.html.....	13
8.4 Work.html.....	15
8.5 Contact.html	17
8.6 Main.CSS.....	18

1. INRODUCTION

This report discusses the website build and address and reflect on technical issues returned from various online validation tools to test the code.

2. REQUIREMENTS

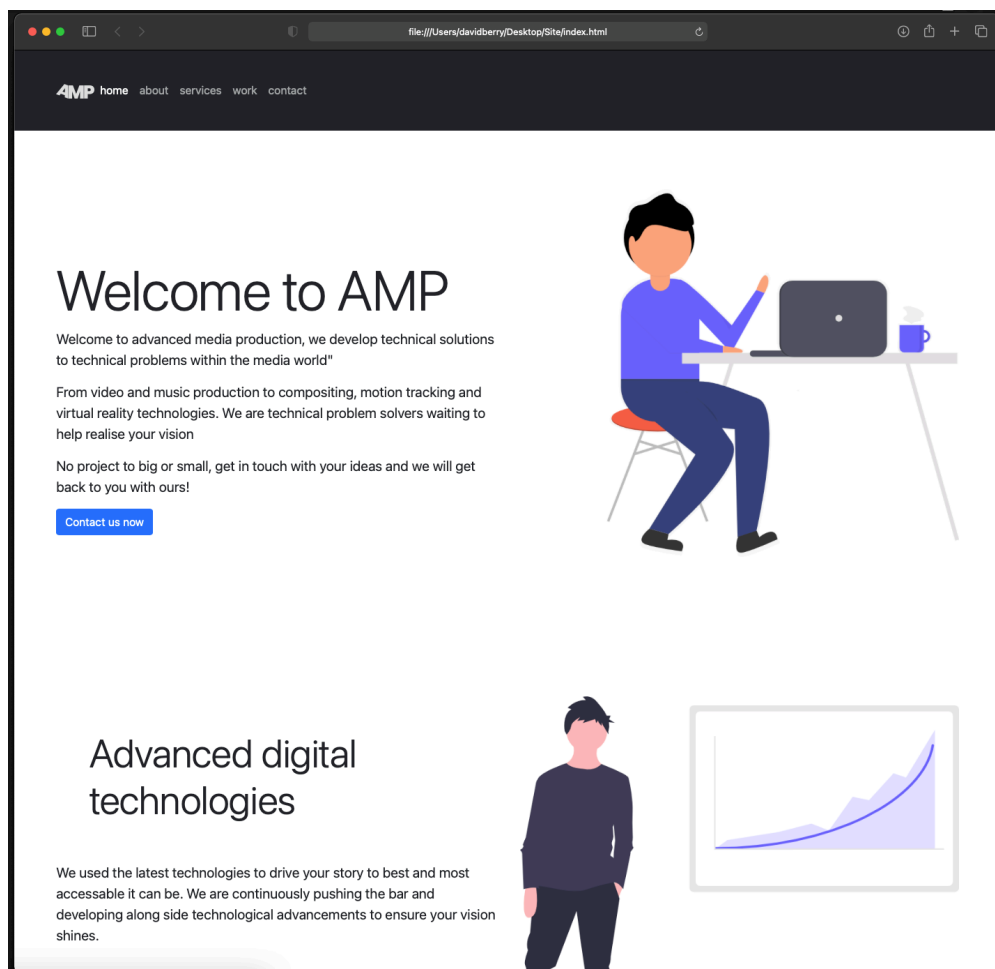
The website is based on a fictitious technical media production company called Advanced Media Production or abbreviated as AMP. The purpose of the site is to showcase to potential clients the services on offer, quality of services by means of demos of previous work and the ethics of the company by a meet the team and discount for good causes offering.

The target audience are purely potential clients looking for technical media services but also encouraging audiences to challenge their requirements with the company's problem-solving abilities.

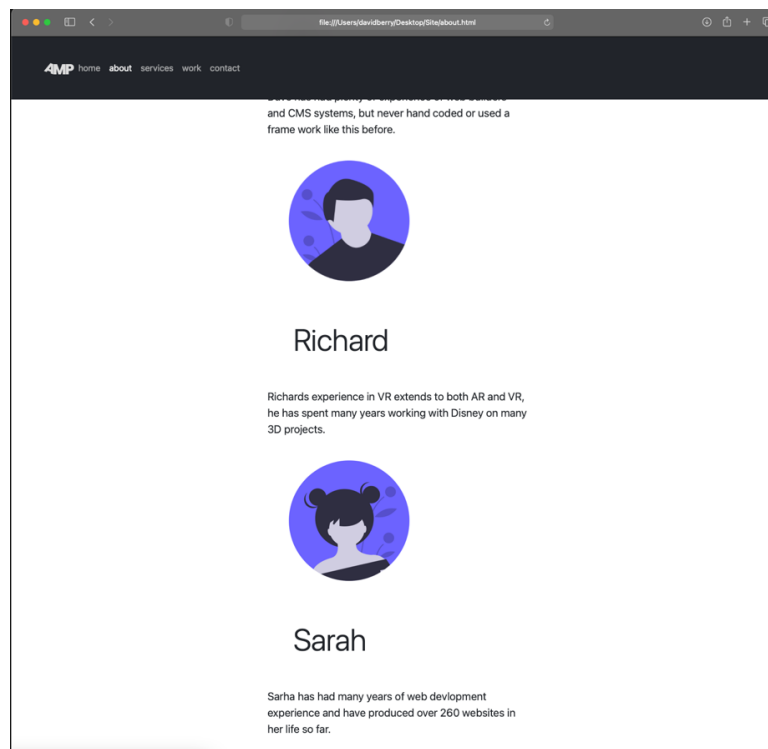
3. IMPLEMENTATION

3.1 SCREEN SHOTS OF PAGES.

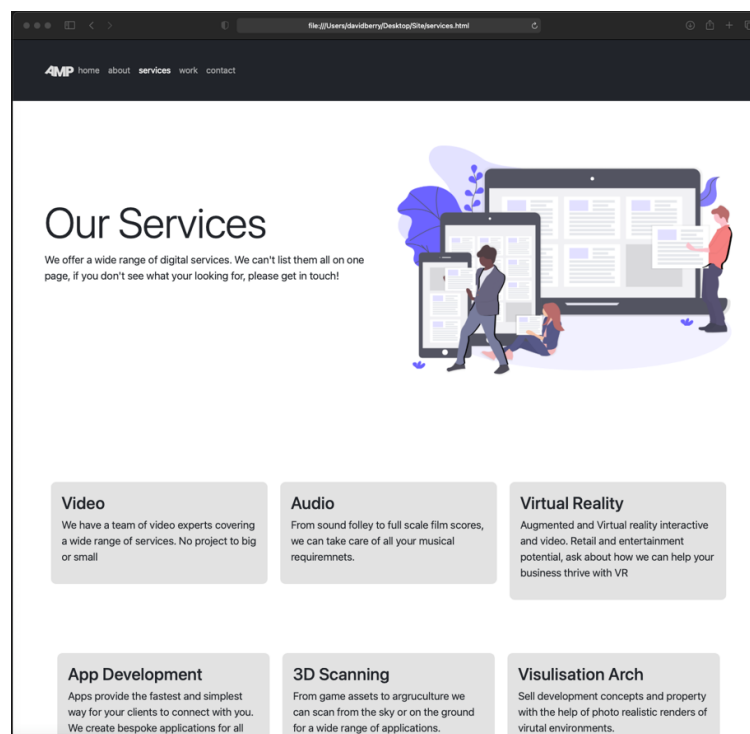
3.1.1 HOME PAGE



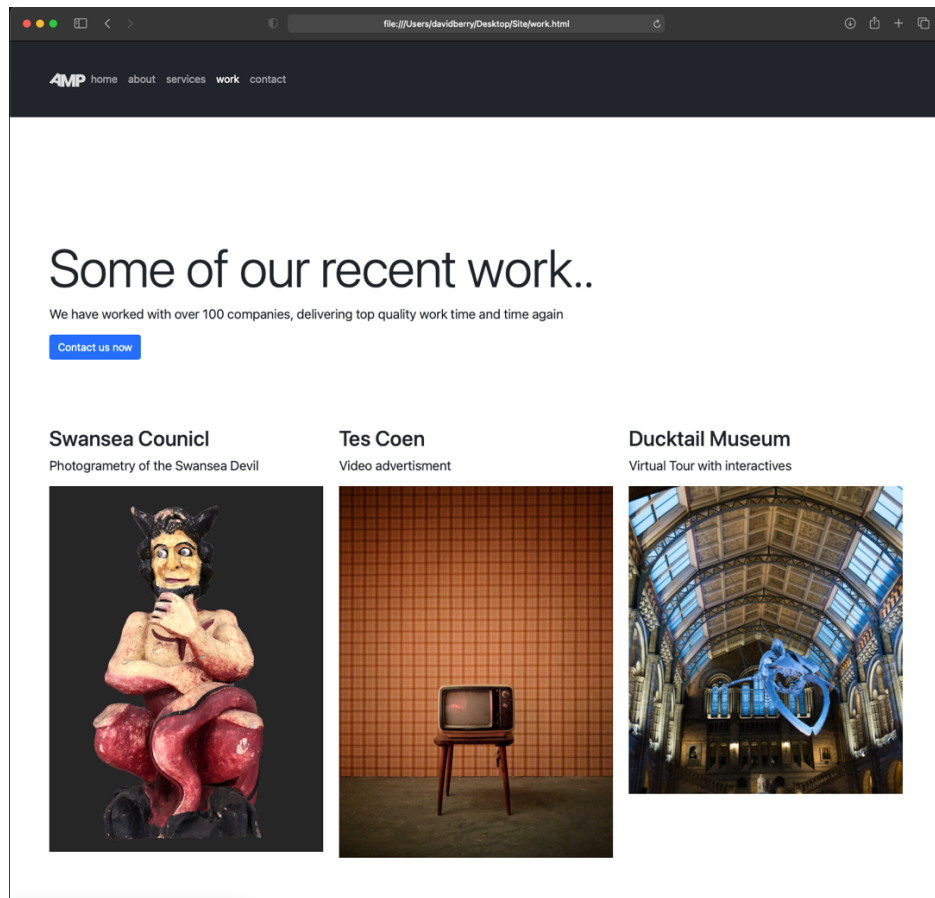
3.1.2 ABOUT US



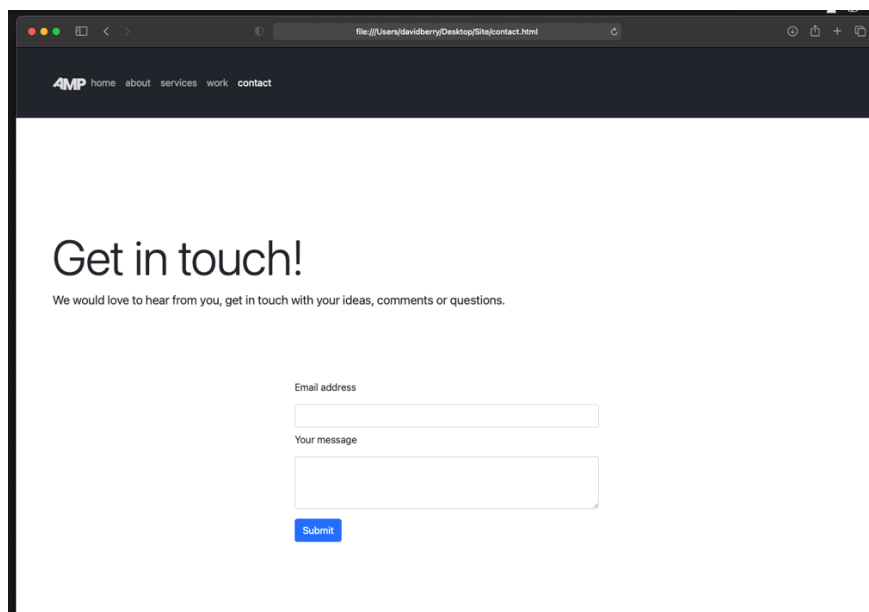
3.1.3 OUR SERVICES



3.1.4 RECENT WORK



3.1.5



3.2 VALIDATION

3.2.1 HTML VALIDATION CHECK FEEDBACK

The tool returned 21 Errors / Warnings. Most were a repeated “Bad Value Width” which I copied and pasted throughout the site so the error was duplicated.

- **Bad Value Width** The width and height were set to 100% or width set using a relative value and the other using an absolute value. Deleting the height values will fix this where relative values are being used and image doesn't need to be stretched.

- **Img missing alt attribute.** This is the alternative text shown where images can't be shown or seen by the users and are important for SEO and accessibility. This can simply be added.

- **Stray tags.** There were a few stray Div tags and missing closing tags. Stray tags are simply deleted and missing tags are placed in.

- **Parse Errors.** There are various parse errors where there incomplete statements.

3.2.2 CSS VALIDATION CHECK FEEDBACK

No errors were found in Main.CSS. Bootstrap's CSS did return a lot of errors but they are not of a concern and expected.

6. EVALUATION

6.1 USABILITY

The usability of an interface is extremely important in ensuring the user can get to where they need without blocks. According to a study on Interface usability where book purchasing tasks were tested with different interfaces, it was found that there was a strong relationship between interface and the trust of the user. [1] To keep people from going elsewhere it's important that the various elements of usability are met, and users find what they are looking for. Navigation, clarity and familiarity are important considerations for this. [2]

6.2 ACCESSIBILITY

Accessibility is an important consideration for websites. It helps with SEO and is essential so that users with disabilities can navigate the site effectively. According to w3.org, web accessibility means that sites are designed and developed in a way that considers all disabilities including auditory, cognitive, neurological, physical, speech and visual. [3] Interfaces should be optimised for mobile devices as well as desktops and technology such as text readers and interpreters. Using HTML Tags properly, especially with header and paragraph tags in a proper structure and the use of alt text on images where images are describing something important.

6.3 SEO

Search engine optimisation is essentially making sure a website can be read and understood simply by a search engine, such as google. [4] Much of SEO can be achieved by good usability and accessibility where a search engines algorithm can simply map out the site which is made easier with proper markup and hierarchy structure. The proper use of HTML tags in a hierarchical format (H1, H2, H3, P etc) is very important.

6.4 EVALUATION OF WEBSITE

6.4.1 USEFULNESS (USABILITY AND UTILITY):

As it stands, the usability of the site is relatively good, but this is mainly due to the basic design and lack of content. This means there isn't enough information to deliver the full offerings of the company to the consumer. Rich media such as video would be a welcome asset to the site as video can express a lot in a short amount of time.

6.4.2 SEARCH ENGINE OPTIMISATION (SEO):

Most images have been given alt text which can help with accessibility and hierarchical structure setup of headers have been used, for example:

H1 Page Title

H2 Section 1

H3 Section 1 / 1

P Paragraph

Image / Alt Text

H3 Section 1 / 1

P Paragraph

Image / Alt Text

H2 Section 2

P Paragraph

Also website titles and boilerplate modern website template have been used on each page. .

6.4.3 ACCESSIBILITY:

Accessibility have been applied in the following ways:

- Good contrasts but not white on black (used dark greys on slightly smoky whites)
- Alt texts have been used
- Hierarchical structures have been used for screen reader tabbing and highlighting
- JavaScript has been placed in the footer to speed up load times.
- Images have been passed through TinyPNG which shrinks the size of files, speeding up load times.

7. BIBLIOGRAPHY

- [1] M. D. O. a. A. B. Christine Roy, The impact of interface usability on trust in Web retailers, <https://doi.org/10.1108/10662240110410165>, 2001.
- [2] C. Gala, "Medium," [Online]. Available: <https://medium.com/adalab/the-importance-of-usability-10e9871a16d8>.
- [3] S. L. Henry, "https://www.w3.org," 5 June 2019. [Online]. Available: <https://www.w3.org/WAI/fundamentals/accessibility-intro/#what>.
- [4] G. Q. Team, "Developers.google.com," [Online]. Available: https://developers.google.com/search/docs/beginner/seo-starter-guide?visit_id=637550384744797140-2252991503&rd=1.

8. APPENDICES

8.1 INDEX.HTML

```
<!doctype html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <title>Advanced Media Technologies</title>
    <meta name="description" content="Advanced Media Technologies">
    <link rel="stylesheet" href="css/bootstrap.css">
    <link rel="stylesheet" href="css/main.css">
  </head>
  <!--NAVIGATION BAR-->
  <nav class="navbar navbar-expand-sm navbar-dark bg-dark fixed-top">
    <div class="container" style="height: 100px;"
      <a href="#" class="navbar-brand mb-0 h1"> 
    </a>
    <button type="button" data-toggle="collapse" data-target="#navbarNav" class="navbar-toggler"
aria-controls="navbarNav" aria-expanded="false" aria-label="show-hide navigation"><span
class="navbar-toggler-icon"></span>
    </button>
    <div class="collapse navbar-collapse" id="navbarNav">
      <ul class="navbar-nav">
        <li class="nav-item active"> <a href="home.html" class="nav-link active
disabled">home</a></li>
        <li class="nav-item active"> <a href="about.html" class="nav-link ">about</a></li>
        <li class="nav-item active"> <a href="services.html" class="nav-link ">services</a></li>
        <li class="nav-item active"> <a href="work.html" class="nav-link ">work</a></li>
        <li class="nav-item active"> <a href="contact.html" class="nav-link ">contact</a></li>
      </ul>
    </div>
  </nav>
  <!------->
  <div class="container" style="margin-top: 200px;">
    <div class="row">
      <div class="col-md">
        <h1 class="display-1 mt-5 pt-5 ">Welcome to AMP</h1>
        <p>Welcome to advanced media production, we develop technical solutions to technical
problems within the media world</p>
        <p>From video and music production to compositing, motion tracking and virtual reality
technologies. We are technical problem solvers waiting to help realise your vision</p>
        <p>No project to big or small, get in touch with your ideas and we will get back to you with
ours!</p>
        <a class="btn btn-primary" href="contact.html" role="button">Contact us now</a>
```

```

    </div>
    <div class="col-md">
        
    </div>
</div>
<div class="container" style="margin-top: 200px;">
    <div class="row">
        <div class="col-md">
            <h2 class="display-4 p-5">Advanced digital technologies</h2>
            <p>We used the latest technologies to drive your story to best and most accessible it can
be. We are continuously pushing the bar and developing along side technological advancements to
ensure your vision shines. </p>
        </div>
        <div class="col-md">
            
        </div>

    </div>
</div>

<div class="container" style="margin-top: 200px;">
    <div class="row">
        <div class="col-md">
            
        </div>
        <div class="col-md">
            <h2 class="display-4 p-5">Always here..</h2>
            <p>We don't just want to build you a one-off solution and move on. We want to be the
people you come back to everytime you have a problem we can help you with. This is what
motivates us to do the the best possible work we can for you. We want to be your go-to
technical problem solvers.</p>
        </div>
    </div>
</div>

<div class="container" style="margin-top: 200px;">
    <div class="row">
        <div class="col-md">
            <h2 class="display-4 p-5">For good..</h2>
            <p>We believe in good-causes. If your a good cause company, get in touch! We will do what
we can to reduce costs to a minimum so let us worry about the technical's so you can contunie your
good. </p>
        </div>
        <div class="col-md">
            
        </div>
    </div>
</div>

```

```

</div>
</div>

<!--FOOTER-->
<div class="container" style="margin-top: 200px; width 100%; padding-top: 20px;">
  <div class="row" style="color: grey; width: 100%; text-align:center;">
    <p>(C)2021 Advanced Media Production Company</p>
  </div>
</div>
</div>
<script src="js/bootstrap.js"></script>
</body>
</html>

```

8.2. ABOUT US

```

<!doctype html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <title>Advanced Media Technologies</title>
    <meta name="description" content="Advanced Media Technologies">
    <link rel="stylesheet" href="css/bootstrap.css">
    <link rel="stylesheet" href="css/main.css">
  </head>
  <body>
    <!--NAVIGATION BAR-->
    <nav class="navbar navbar-expand-sm navbar-dark bg-dark fixed-top">
      <div class="container" style="height: 100px;">
        <a href="#" class="navbar-brand mb-0 h1">
        </a>
        <button type="button" data-toggle="collapse" data-target="#navbarNav" class="navbar-toggler" aria-
controls="navbarNav" aria-expanded="false" aria-label="show-hide navigation"><span class="navbar-toggler-
icon"></span>
        </button>
        <div class="collapse navbar-collapse" id="navbarNav">
          <ul class="navbar-nav">
            <li class="nav-item active"> <a href="index.html" class="nav-link">home</a></li>
            <li class="nav-item active"> <a href="about.html" class="nav-link active disabled">about</a></li>
            <li class="nav-item active"> <a href="services.html" class="nav-link ">services</a></li>
            <li class="nav-item active"> <a href="work.html" class="nav-link ">work</a></li>
            <li class="nav-item active"> <a href="contact.html" class="nav-link ">contact</a></li>
          </ul>
        </div>
      </nav>
      <!------->
      <div class="container" style="margin-top: 200px;">
        <div class="row">
          <div class="col-md">
            <h1 class="display-1 mt-5 pt-5 ">About us</h1>
            <p>We are a small team of digital technical experts that span a wide range of digital technologies. The
company started back in 2001 and since then we have grown faster than we are able to keep up with demand.
We are an dedicated team that will do what we can to ensure you deliver quality service time and time again.
</p>

```

```

    </div>
    <div class="col-md">
      
    </div>
  </div>
  <div class="container" style="margin-top: 200px; max-width: 500px;">
    <div class="row">
      <div class="col-md">
        
      </div>
      <div class="col-md">
        <h3 class="display-4 p-5">Dave</h3>
        <p>Dave has had plenty of experience of web builders and CMS systems, but never hand coded or
used a frame work like this before.</p>
      </div>
    </div>
    <div class="row">
      <div class="col-md">
        
      </div>
      <div class="col-md">
        <h3 class="display-4 p-5">Richard</h3>
        <p>Richards experience in VR extends to both AR and VR, he has spent many years working with
Disney on many 3D projects.</p>
      </div>
    </div>
    <div class="row">
      <div class="col-md">
        
      </div>
      <div class="col-md">
        <h3 class="display-4 p-5">Sarah</h3>
        <p>Sarha has had many years of web development experience and have produced over 260 websites
in her life so far.</p>
      </div>
    </div>
  </div>

<!--FOOTER-->
<div class="container" style="margin-top: 200px; width 100%; padding-top: 20px;">
  <div class="row" style="color: grey; width:100%; text-align:center;">
    <p>(C)2021 Advanced Media Production Company</p>
  </div>
</div>
</div>
<script src="js/bootstrap.js"></script>
</body>
</html>

```

8.3 SERVICES.HTML

```

<!doctype html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <title>Advanced Media Technologies</title>

```

```

<meta name="description" content="Advanced Media Technologies">
<link rel="stylesheet" href="css/bootstrap.css">
<link rel="stylesheet" href="css/main.css">
</head>
<body>
  <!--NAVIGATION BAR-->
  <nav class="navbar navbar-expand-sm navbar-dark bg-dark fixed-top">
    <div class="container" style="height: 100px;>
      <a href="#" class="navbar-brand mb-0 h1"> 
      </a>
      <button type="button" data-toggle="collapse" data-target="#navbarNav" class="navbar-toggler" aria-
controls="navbarNav" aria-expanded="false" aria-label="show-hide navigation"><span class="navbar-toggler-
icon"></span>
      </button>
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          <li class="nav-item active"> <a href="about.html" class="nav-link">about</a></li>
          <li class="nav-item active"> <a href="services.html" class="nav-link active
disabled">services</a></li>
          <li class="nav-item active"> <a href="work.html" class="nav-link ">work</a></li>
          <li class="nav-item active"> <a href="contact.html" class="nav-link ">contact</a></li>
        </ul>
      </div>
    </nav>
    <!------->
    <div class="container" style="margin-top: 200px;>
      <div class="row">
        <div class="col-md">
          <h1 class="display-1 mt-5 pt-5 ">Our Services</h1>
          <p>We offer a wide range of digital services. We can't list them all on one page, if you don't see
what your looking for, please get in touch!</p>
        </div>
        <div class="col-md">
          
        </div>
      </div>
      <div class="container" style="padding-top: 200px; padding-bottom:200px;>
        <div class="row">
          <div class="col-lg-4">
            <div class="box" style="padding:20px; border-radius:10px; background-color: rgb(226, 226,
226);">
              <h2>Video</h2>
              <p>We have a team of video experts covering a wide range of services. No project to big or
small</p>
            </div>
          </div>
          <div class="col-lg-4">
            <div class="box" style="padding:20px; border-radius:10px; background-color: rgb(226, 226,
226);">
              <h2>Audio</h2>
              <p>From sound folley to full scale film scores, we can take care of all your musical
requiremets.</p>
            </div>
          </div>
          <div class="col-lg-4">
            <div class="box" style="padding:20px; border-radius:10px; background-color: rgb(226, 226,
226);">

```

```

        <h2>Virtual Reality</h2>
        <p>Augmented and Virtual reality interactive and video. Retail and entertainment potential, ask
about how we can help your business thrive with VR</p>
    </div>
</div>
<div class="container" style="padding-top: 100px;">
    <div class="row">
        <div class="col-lg-4">
            <div class="box" style="padding:20px; border-radius:10px; background-color: rgb(226, 226,
226);">
                <h2>App Development</h2>
                <p>Apps provide the fastest and simplest way for your clients to connect with you. We
create bespoke applications for all size companies. </p>
            </div>
        </div>
        <div class="col-lg-4">
            <div class="box" style="padding:20px; border-radius:10px; background-color: rgb(226, 226,
226);">
                <h2>3D Scanning</h2>
                <p>From game assets to argiculture we can scan from the sky or on the ground for a wide
range of applications. </p>
            </div>
        </div>
        <div class="col-lg-4">
            <div class="box" style="padding:20px; border-radius:10px; background-color: rgb(226, 226,
226);">
                <h2>Visulisation Arch</h2>
                <p>Sell development concepts and property with the help of photo realistic renders of virtual
environments. </p>
            </div>
        </div>
    </div>
</div>
</div>
</div>
</div>
</div>
</div>
<!--FOOTER-->
<div class="container" style="margin-top: 200px; width 100%; padding-top: 20px;">
    <div class="row" style="color: grey; width:100%; text-align:center;">
        <p>(C)2021 Advanced Media Production Company</p>
    </div>
</div>
</div>
<script src="js/bootstrap.js"></script>
</body>
</html>

```

8.4 WORK.HTML

```

<!doctype html>
<html lang="en">
    <head>
        <meta charset="utf-8">
        <title>Advanced Media Technologies</title>
        <meta name="description" content="Advanced Media Technologies">
        <link rel="stylesheet" href="css/bootstrap.css">
        <link rel="stylesheet" href="css/main.css">
    </head>
    <body>

```

```

<!--NAVIGATION BAR-->
<nav class="navbar navbar-expand-sm navbar-dark bg-dark fixed-top">
  <div class="container" style="height: 100px;>
    <a href="#" class="navbar-brand mb-0 h1"> 
    </a>
    <button type="button" data-toggle="collapse" data-target="#navbarNav" class="navbar-toggler" aria-
controls="navbarNav" aria-expanded="false" aria-label="show-hide navigation"><span class="navbar-toggler-
icon"></span>
    </button>
    <div class="collapse navbar-collapse" id="navbarNav">
      <ul class="navbar-nav">
        <li class="nav-item active"> <a href="index.html" class="nav-link">home</a></li>
        <li class="nav-item active"> <a href="about.html" class="nav-link">about</a></li>
        <li class="nav-item active"> <a href="services.html" class="nav-link">services</a></li>
        <li class="nav-item active"> <a href="work.html" class="nav-link active disabled">work</a></li>
        <li class="nav-item active"> <a href="contact.html" class="nav-link">contact</a></li>
      </ul>
    </div>
  </div>
</nav>
<!------->
<div class="container" style="margin-top: 200px;">
  <div class="row">
    <div class="col-md">
      <h1 class="display-1 mt-5 pt-5">Some of our recent work..</h1>
      <p>We have worked with over 100 companies, delivering top quality work time and time
again</p>
      <a class="btn btn-primary" href="contact.html" role="button">Contact us now</a>
    </div>
    <div class="container" style="margin-top: 100px; margin-bottom: 500px">
      <div class="row">
        <div class="col-md">
          <h2>Swansea Council</h2>
          <p>Photogrametry of the Swansea Devil</p>
          
        </div>
        <div class="col-md">
          <h2>Tes Coen</h2>
          <p>Video advertisment</p>
          
        </div>
        <div class="col-md">
          <h2>Ducktail Museum</h2>
          <p>Virtual Tour with interactives</p>
          
        </div>
      </div>
    </div>
  </div>
<!--FOOTER-->
<div class="container" style="margin-top: 200px; width 100%; padding-top: 20px;">
  <div class="row" style="color: grey; width:100%; text-align:center;">
    <p>(C)2021 Advanced Media Production Company</p>
  </div>
</div>
</div>
<script src="js/bootstrap.js"></script>
</body>
</html>

```

8.5 CONTACT.HTML

```
<!doctype html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <title>Advanced Media Technologies</title>
    <meta name="description" content="Advanced Media Technologies">
    <link rel="stylesheet" href="css/bootstrap.css">
    <link rel="stylesheet" href="css/main.css">
  </head>
  <!--NAVIGATION BAR-->
  <body>
    <nav class="navbar navbar-expand-sm navbar-dark bg-dark fixed-top">
      <div class="container" style="height: 100px;>
        <a href="#" class="navbar-brand mb-0 h1"> 
        </a>
        <button type="button" data-toggle="collapse" data-target="#navbarNav" class="navbar-toggler" aria-
controls="navbarNav" aria-expanded="false" aria-label="show-hide navigation"><span class="navbar-toggler-
icon"></span>
        </button>
        <div class="collapse navbar-collapse" id="navbarNav">
          <ul class="navbar-nav">
            <li class="nav-item active"> <a href="index.html" class="nav-link">home</a></li>
            <li class="nav-item active"> <a href="about.html" class="nav-link">about</a></li>
            <li class="nav-item active"> <a href="services.html" class="nav-link">services</a></li>
            <li class="nav-item active"> <a href="work.html" class="nav-link">work</a></li>
            <li class="nav-item active"> <a href="contact.html" class="nav-link active disabled">contact</a></li>
          </ul>
        </div>
      </div>
    </nav>
    <!------->
    <div class="container" style="padding-top: 200px;">
      <div class="row">
        <h1 class="display-1 mt-5 pt-5">Get in touch!</h1>
        <p>We would love to hear from you, get in touch with your ideas, comments or questions.</p>
      </div>
    </div>
    <div class="contatiner mx-auto" style="max-width: 500px; margin-top: 100px;">
      <div class="mb-3">
        <label for="Input1" class="form-label">Email address</label>
        <input type="email" class="form-control" id="Input1">
        <label for="Textarea1" class="form-label">Your message</label>
        <textarea class="form-control" id="Textarea1" rows="3"></textarea>
        <input class="btn btn-primary" type="submit" value="Submit">
      </div>
    </div>

    <!--FOOTER-->
    <div class="container" style="margin-top: 200px; width 100%; padding-top: 20px;">
      <div class="row" style="color: grey; width: 100%; text-align:center;">
        <p>(C)2021 Advanced Media Production Company</p>
      </div>
    </div>
    </div>
    <script src="js/bootstrap.js"></script>
  </body>
</html>
```

8.6 MAIN.CSS

```
h1{
    font-size: 50px;
    font-weight: 800;
}

p{
    font-size: 20px;
}

input, textarea{
    color: white;
    margin: 8px 0;
    border-radius: 5px;
}

input, submit{
    color: brown;
}
```