**CCT College Dublin**

**Assessment Cover Page**

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| **Module Title:** | Web Development (M5) |
| **Assessment Title:** | Develop a responsive web application, optimized for mobile, tablets and desktop devices |
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**Introduction**

This report will delve into the approach to the making of the website, including rationale and justification for the layout. This report will discourse about strategies for managing both short and long-term data storage needs, including recommendations for backup and recovery plans to prevent downtime and ensure easy maintenance. Additionally, it will touch on potential use of a database storage solution for future development of the website.

**Approach to making the website**

This cinema website is aiming visitors with information which movies are currently playing and a number of upcoming movies, watching a trailer to see if the customers like the movie and the booking of a cinema ticket. The following steps were taken:

**Analysis:** The first step of attacking the problem was have to conduct a thorough analysis of the requirements of the website, which included a movie listing, booking page where the user inputs were validated, and on the main page you can search for a movie by either the actors name or movie name.

**Design planning:** Based on the analysis above and looking at several cinema pages, a design was made on a piece of paper to create the structure and layout of the website. In the “rationale and justification for the layout” we delve deeper in the reasons of the layout.

**Development:** The website is made with Visual studio Code application and used the HTML, CSS and JavaScript languages to create the frontend, and used the bootstrap website to find ideas for the layout.

**Testing:** The website undergone rigorous testing with multiple devices and browsers to ensure the functionality across different platforms.

**Rationale and justification for the layout**

The decisions for the layout were based on the following:

**User experience:** The main goal was to build a user-friendly, easy navigating frontend website that allows customers find a movie they would like to watch and make a booking. The importance was to display content logically, using clear language and a plethora of images to make navigation very easy and intuitive.

**Visual appeal:** The simple layout was to bring attention to the imagery to help users to engage in the website.  
**Functionality:** The layout was designed to accommodate the features requested in the CA and not to overwhelm the user with extra information.  
**Consistency:** Consistent design throughout the website like the navigation bar across all pages made the website look cohesive.

**Sitemap**Below is a sitemap of the Cinema website:

**Home page**

* Navigation bar: Home| Booking | search bar
* Carousel: displaying upcoming movies
* 24 movies with image links redirecting to new page with description, video and image

**24 Individual movie pages**

* Navigation bar: Home| Booking
* Information regarding that movie

**Booking page**

* Navigation bar: Home| Booking
* Booking form to buy tickets

**Successfully bought ticket page**

* Navigation bar: Home| Booking
* When you successfully filled in booking form will be redirected to your booked ticket page

**Short and long-term storage (1)**

The effective data managing is crucial for the success of any website, especially one that involves transactions, like a booking system. Below you can find how we can manage short and long-term data storage:   
**Short-term data storage:** This type of data is only used for short-term retention, typically ranging from hours to weeks. This could be our movie listings or customers preferences.  
**Long-term data storage:** This type of data is needed for archiving data, such as past booking records or other meta data.

**Backup and recovery plan:**

To make sure that the website ensures data integrity, it is recommended to regularly schedule a backup in cause somethings might happen.   
An offsite back like storage or different location would be suitable in case of data lost due to physical damage.   
Applications like GitHub provide a version control so you could work on a new version without altering the current one which would be online.

**Future enhancement:**

When the website grows due to more users and bookings on the cinema page it is essential to accommodate the influx of increasing data. A relational database management system like MySQL which we are learning currently in the module databases would be suitable for managing the data such as user profiles, booking records.

**Conclusion:**

While building a website it is of the utmost importance to plan carefully, so you don’t have to rewrite all the code of every single page. By using a customer-minded approach to design and implement suitable data storage solution, the website can provide a positive UX experience for the user.

(1)

IGNATIUS, P., AMARENDRAN, A.P. and PRESTON, S.M. (2024). *Submit Form*. [online] pingsso.ebscohost.com. Available at: https://research.ebsco.com/c/jzntuu/search/details/smv46p3o6n?limiters=FT%3AY&q=Data%20Storage%20Management%20Web-Based%20Applications [Accessed 11 Mar. 2024].