**EMA**

**Question 1**

(b).

**Wireframes report**

This report is to give an insight in to the wireframes designed for the admin application and how the admin user can navigate through application to carry out the administrative tasks required.

The wireframes show a basic design that should be easy to use. The structure is very similar to the actual website in terms of the header and layout. The design is based for the admin user to be able to navigate around the website with a simple click of a button and to be able to carry out the required tasks. The dashboard or home page has hyperlinks on the side as well as large buttons in the middle of screen to direct the user to the page required. The design created I think flows for usability but also from functionality perspective everything that is added to the website can also be edited or deleted with ease.

By clicking the Walk events button or link this will take you to a page where the admin user can add a new walk by populating the relevant fields but also if the user would like to view/approve a walk proposed by a member. Also if there is an option to be able to edit an existing walk or delete it.

On the Other events button or link again this will take the user to the other events page where the user is able to add an event but also edit or delete an event as required.

The Membership button or link will take the user to the membership page where they are able to edit existing active members details in one section, then also approve/reject any new members request to join and also a section displaying inactive members that have been inactive for over 24 months where there is an option to mark these members and also delete if required.

The News items button or link will take the user to the news items page where the user is able to add a new news item or edit/delete an existing news item on the same page.

The Announcement button or link will take the user to the announcements page where the admin user is able to send announcements emails to all members who have given their consent by selecting the select all box. The admin user us able to attach a single file also with the ability to be able specify the date and time the email is sent by filling populating the required fields.

For security the admin user would have to use the log in button and enter a user name and password that would authorised before being able to navigate and use the admin application.

The proposed wireframes have been designed with the main focus being usability. I would expect any one from the administrative team to be able to use this application and be able to complete any of the required tasks.

**Question 2**

a.

A screenshot of a cell phone

Description automatically generated

b.

A screenshot of a cell phone

Description automatically generated

c.

**OU Walking Club Application**

This report is to describe some of the features of the page. Also to provide some explanations and recommendations about the design.

Some of the features on the page design include a responsive header which changes when displayed on a mobile device. The sidebar is also responsive, so when used on a laptop screen (1024px) is displayed on the left side but if the user were to use the page on a mobile device at (375px) the sidebar would then be displayed in the centre of the page above the form. This way the user can first navigate to the page they require and then scroll down to use add walk entry form. The form itself is also responsive where the layout responds to the type of screen used for example on a desktop screen the label is displayed alongside the input box but on a mobile screen the label is above the input box.

Some of the difficulties encountered creating a responsive application for a mobile device was the additional code required and also the additional testing which takes more time. The responsive approach I do feel is necessary though as with users being able to use mobile device as well as laptops etc. This will make the club website and admin application much more successful with usability being key. From my own experience I am more likely to use my mobile device when using a website like the OU Walking Club and I think from a member or a potential members point of view this is key in terms attracting more members and having those members interact with the website as well. With mobile phones been used now more than ever. (Handley, 2019) “Almost three quarters (72.6 percent) of internet users will access the web solely via their smartphones by 2025, equivalent to nearly 3.7 billion people.

Just over 1.3 billion are forecast to access the internet via smartphone and PC by 2025, according to a report published Thursday by the World Advertising Research Center (WARC), using data from mobile trade body GSMA. Sixty-nine million will access the internet via PC only.

WARC estimates that around 2 billion people currently access the internet via only their smartphone, which equates to 51 percent of the global base of 3.9 mobile users.”

For this reason and looking to the future with more users using mobile devices it is very important that both the website and admin application are of the responsive design to facilitate both mobile and desktop users.

References:

Handley, L. (2019) ‘Nearly three quarters of the world will use just smartphone to access the internet by 2025’. *CNBC,* 24 January [Online]. Available at <https://www.cnbc.com/2019/01/24/smartphones-72percent-of-people-will-use-only-mobile-for-internet-by-2025.html> (Accessed 13 May 2020).

**Question 3**

**Authentication and authorisation**

This report will explore authentication and authorisation requirements for both the club website and the admin application.

Authentication is a process that is related to identification. The process is based on proving the users identity. According to Schneier (2000, p. 136) “traditional methods of authentication have relied on one of three things:

* Something you know
* Something you are
* Something you have.”

*‘Something you know’* is the most common approach to authentication. This approach is usually a combination of a identifier which is also known as a username and also a password. The user-identifier says ‘this is who I am’ and the password is a secret shared between the server and user. If the password matches the identifier then the authentication process has been completed.

*‘Something you are’* relates to forms of biometric data. This example can be seen with some smartphones which have fingerprint or facial recognition to identify a user. This feature may not be accessed directly by the web application but device may use it to decrypt a password and send it to the application.

‘Something you have’ refers to the idea of a physical object. For example a bank card or a mobile phone. Also UK banks issue card readers a security measure and this another example of ‘something you have’.

The approach I recommend and is the most common, is the basic authentication or ‘something you know’. This should be used for both the club website and also the admin application. The reason for this recommendation is this a tried and tested method. Also most users would already be familiar with this method.

Basic authentication must only be sent over HTTPS this is to secure the authentication data while in transit over a network or in a storage in a database. This is to avoid exposing any passwords.

Authorisation is a process related to permissions. This process is the final step after authentication. The process allocates appropriate controls and privileges to the user that has been authorised. In the case of the admin application only users with administrators rights will have access to this area and this is highest level of authorisation. A user with admin rights has access to all areas of the website and is able to change any area of the website. A normal member would have very minimal controls for example they could not add or delete any content and could only request an administrator to carry out the request. This is important to protect the website as or else anyone could sabotage it. There is always an option of creating levels of authorisation for example we could have an editor level where a select member or group are able to add or edit select content but are unable to approve or delete members. It is very important to have different levels of authorisation in order to have a successful and functioning website. It is required to keep the website current and up to date but also for maintenance. The potential consequences of getting authorisation wrong could be catastrophic though. This would need to be tightly regulated as to has access to specific controls and this will be based on trust.

So I propose a basic authentication and also create at least a 2 tier level authorisation. One level for members and then the administrator level for the admin team to be able to change or add anything required.