Version 1.0

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| AQA-logo-black | General Certificate of Secondary Education |

**4512**

**GCSE in Computer Science**

**Component 1: Practical programming**

**Specimen Candidate Booklet:**

**Scenario 4 – Web Application Solution**

*This scenario is one of four available. Each of the four scenarios is available in separate candidate booklets. You must choose* ***two*** *from the four.*

Instructions

* You have approximately 25 hours in which to complete **all** of this scenario.
* There are restrictions on when and where you can work on this scenario. Your teacher will explain them to you. For example, you can only do work that you intend to hand in for marking when a teacher is present so that he or she can confirm that the work is your own.
* Before beginning the scenario, read the whole of this booklet thoroughly. You can ask your teacher to explain anything in this booklet that you do not understand.
* You must not work with other students on anything that you intend to hand in for marking.

**Component 1: Practical programming**

**Background**

A local sports and social club have approached you to develop a web site. This web site will be used to promote the facilities that the club provides for its members and to encourage people to join the club.

The club has a range of sports facilities that can be enjoyed by its members. These include:

• two squash courts

• an indoor five-a-side football pitch

• four badminton courts

• two snooker / three pool tables

• two table-tennis tables

• a multi-purpose sports hall – this can be hired for other sports such as exercise classes and martial arts clubs.

There is a “members only” social room with facilities for food and drinks that can be enjoyed by all members.

There is also a large function room that can be hired by the public. This room has been used in the past for large meetings, wedding receptions and parties.

You have met with the owners of the club and they have explained to you that they already have a simple web site with some text and images that show the different facilities the club has to offer.

You have been provided with a copy of this basic web site which includes the following pages:

1. Home

This page contains a general overview of the sports club with images and a brief description.

It also contains a navigation menu with links to all of the following pages:

Sports Facilities, Social/Function Room, Sports Hall and Prices

1. Sports Facilities

This page contains a brief overview of the sports facilities offered by the club with images and a text description.

1. Social/Function Room

This page contains a brief overview of the social and function room with images and text.

1. Sports Hall

This page contains a brief overview of the timetabled events offered in the sports hall during the week.

1. Prices

This page contains a list of the membership fees charged by the club.

The owners of the club have had some ideas about how to improve their web site for both existing members and people who are interested in the facilities that the club has to offer. They have asked you to complete the tasks below.

**Additional functionality required for existing club members**

**Task 1**

The owners of the sports club have asked if they can make the site more useful to the existing members. When asked, one of the owners of the club came up with the following idea:

*“It would be nice if the site had a “members only” page that provides them with exclusive information about the club, including:*

*• up-coming events such as sports competitions or social events*

*• dates and times of meetings of the sports teams or the club committee*

*• news such as sports results or awards won by teams.*

*I think it would be good to keep members up to date in this way.”*

The owners have asked you to design and create a suitable method for making sure that only members of the club can access the “members only” page.

Create a system to allow a member to register the following details into a database on the web server where the site is hosted:

• username

• password

• first name

• surname

• email address.

Once registered, when the member types in their username and password on the web site, they should have access to the special “members only” page.

The owners have provided you with a suitable skeleton “members only” page for you to link to. It is called membersonly.html and is saved in the existing web site folder.

**Task 2**

There needs to be a way that an existing member, who logs into the web site, can change some of their personal details. They should be able to change the details listed below:

• first name

• surname

• email address.

A member’s username and password must stay the same once the account is created.

Create a system to allow an existing member to change their details as explained above.

**Additional functionality required for the general public**

**Task 3**

Create a simple messaging system with a “Customer Enquiry Page” where **all** visitors to the web site can complete an online form. Your form should allow the following enquiry details to be stored in a database:

• name

• email address

• type of enquiry - choose from:

* sports facilities
* function room bookings
* multi-purpose sports hall

• body of the message – there should be a maximum of 255 characters in the message body.

When the enquiry has been submitted and saved in the database the visitor should be given a “Thank you” message on screen.

**Resources**

The club owners have provided you with a copy of their existing web site. You should use this when creating your solution. This web site contains:

* the existing pages described earlier
* a skeleton members only page
* a template page
* the style sheet
* the images used within the pages

They have added suitable headings to their navigation bar that you can use to link to some of your new pages.

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