TEST PROJECT IT SOFTWARE SOLUTIONS FOR BUSINESS

WSC2015_TP09_S7_actual

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CONTENTS

Session 7 of this Test Project consists of the following documentation/files:

1. WSC2015_TP09_S7_EN.pdf   (Session 7 instructions)
2. marathon-skills-2015-testing-data-s7.pdf   (Testing data for session 7)
3. marathon-skills-2015-volunteer-list.csv   (CSV list of volunteers for importing)
4. marathon-skills-2015-gender-icons.zip   (Icons used for gender selection: male/female)
5. marathon-skills-2015-bmi-icons.zip   (Icons used for the BMI categories)

INTRODUCTION

In this session, you will be continuing the development of the Marathon Skills 2015 application, building on what you have already developed. If you did not complete all the deliverables from the previous session, do not finish them now, you have new deliverables to work on.

In this session, you will be allowing an administrator to view volunteers and import a CSV list of volunteers. You will also be constructing two interactive calculators to help public users with their health.

Testing data has been provided to help you test the system: marathon-skills-2015-testing-data-s7.pdf

INSTRUCTIONS TO THE COMPETITOR

By the end of this session, you will need to have the following deliverables ready to submit so that the Marathon Skills system will be finished on time.

Make sure that you follow the provided style guide throughout all parts of the system.

Make sure that you provide appropriate validation and error messages throughout all parts of the system.

Make sure that all relevant buttons/links are working at the end of the session.

Make sure that you use appropriate naming conventions for all parts of the system as needed.

DELIVERABLES

7.1 CREATE "28. VOLUNTEER MANAGEMENT"

Create the window as outlined in "28. Volunteer management" in the wireframe.

This window shows an administrator (who is currently logged into the system) all of the volunteers that are currently in the database. The administrator can sort by all of the fields of the result table.

The total number of volunteers being displayed in the list should be displayed above the list.

The first name, last name, country and gender will be listed for each volunteer.

When the "Import volunteers" button is clicked, the "29. Import volunteers" form will be loaded.

7.2 CREATE "29. IMPORT VOLUNTEERS"

Create the window as outlined in "29. Import volunteers" in the wireframe.

This form allows an administrator to import a list of volunteers in CSV (comma separated values) format. They will choose a CSV file that matches the required format and click "Import".

Refer to the provided CSV file for the correct structure/fields: volunteer-list.csv

If the file selected is not a valid CSV file or does not match the required format, appropriate error messages should be displayed. A message should also be given when a CSV file is imported successfully.

Volunteer records being imported via CSV should be appended to the existing data. If a record being imported has the same ID as an existing record, the new record should overwrite the old record.

You should make a note on the form listing the fields as they should appear in the CSV file, along with a description of each field.

7.3 CREATE "33. BMI CALCULATOR"

Create the window as outlined in "33. BMI calculator" in the wireframe.

This form allows a user to calculate their BMI based on their weight and height.

BMI stands for Body Mass Index. It is used to give you an idea of whether you're underweight, overweight or an ideal weight for your height. It's useful to know because if your weight increases or decreases outside of the ideal range, your health risks may increase.

The calculated BMI will be displayed on a scale as shown in the wireframe, the position of the arrow above the scale should show which category the user is in (underweight, healthy, overweight, obese).

The BMI person icon should change according to the category that the user is in (underweight, healthy, overweight, and obese) and the appropriate category title displayed.

The user selects their gender by clicking on the male/female icons. The selected icon should have a thicker border or some other way of showing that it is selected.

Note: gender is requested in the form but is not used in the calculation.

Required input:

- Weight (kg)
- Height (cm)

Calculation:

BMI = weight / (height x height)

(weight in kg, height in m)

Interpretation of BMI into categories:

< 18.5   Underweight

18.5 - 24.9   Healthy

25 - 29.9   Overweight

> 30   Obese

7.4 CREATE "34. BMR CALCULATOR"

Create the window as outlined in "34. BMR calculator" in the wireframe.

This form allows a user to calculate their BMR based on their gender, age, weight and height.

BMR stands for Basal Metabolic Rate. The BMR is used as a measure of an adult's metabolism, which changes with height, weight, age and a variety of medical factors.

The user selects their gender by clicking on the male/female icons. The selected icon should have a thicker border or some other way of showing that it is selected.

Clicking the information icon ($\mathbf{\hat{i}}$) next to "Daily calories burned" will display a list of the activity levels with their descriptions in a popup/modal window.

You will need to calculate the base BMR value (displayed under "Your BMR") and then calculate the various "Daily calories burned" values for each activity level.

REQUIRED INPUT:
- Gender
- Height (**cm**)
- Weight (**kg**)
- Age (**years**)

CALCULATION:
Result will be in kilocalories (kcal) per day.

(weight in **kg**, height in **cm**, age in **years**)

For men: BMR = 66 + (13.7 x weight) + (5 x height) - (6.8 x age)

For women: BMR = 655 + (9.6 x weight) + (1.8 x height) - (4.7 x age)

CALCULATE DAILY CALORIE NEEDS:

ACTIVITY LEVEL	ACTIVITY FACTOR
Sedentary	BMR * 1.2
Lightly Active	BMR * 1.375
Moderately Active	BMR * 1.55
Very Active	BMR * 1.725
Extremely Active	BMR * 1.9

DESCRIPTION OF ACTIVITY LEVELS:

ACTIVITY LEVEL	DESCRIPTION
Sedentary	Light or no exercise and desk job
Lightly Active	Light exercise or sports 1 – 3 days a week
Moderately Active	Moderate exercise or sports 3 – 5 days a week
Very Active	Hard exercise or sports 6 – 7 days a week
Extremely Active	Hard daily exercise or sport and physical job