

**02. [2025-03-03] S1P02 – Practical 02.**

- **Practical Theme:** HTML and CSS within MVC •

**Due date:** 2025-03-10 before 23:59.

## Activity Notes & Instructions

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**PURPOSE AND OBJECTIVE.**

The purpose and objective of this practical activity is to:

- Objective 1: Creating a ASP.NET MVC (C#) project.
- Objective 2: Creating a model, controller, and a view in the project.
- Objective 3: Adding properties and decorators to the model.
- Objective 4: Using the controller and a very simple list of data.
- Objective 5: Displaying simple list data in the view.
- Objective 6: Update the global layout menu to include the new view.

**MATERIAL BEING REFERENCED.**

To complete this activity, a student should refer to the notes, details, and sample projects that are part of:

- 02. [ 2025 -02 -17 ] S1L02 Session 02 - Getting started with Visual Studio and GitHub.
- 03. [ 2025 -02 -24 ] S1L03 Session 03 - Working with the ASP.NET Model-View-Controller.
- 03. [ 2025 -02 -24 ] S1P02 Practical 02 - Working with the ASP.NET Model-View-Controller.
- 04. [ 2025 -03 -03 ] S1L04 Session 04 – HTML and CSS within MVC.

**ADDITIONAL USEFUL RESOURCES.**

Additional reading resources that may assist with the completion of this activity:

- Learn ASP.NET MVC 5 - TutorialTeacher.com [ URL: <https://www.tutorialsteacher.com/mvc> ].

**RESEARCH THAT WILL BE NECESSARY.**

You will have to conduct independent research and readings on the following topics:

- Pseudo-classes in HTML
- Flipping an image element
- How to load the previous page in the history list.

**GENERAL INSTRUCTIONS.**

Please ensure that you follow the following general instructions.

- This is an individual practical.
- Practical work is based on assessment objectives. If an objective has been achieved a mark will be allocated.
- All practical activities conceptually (based on skills) feed into one or more homework assignments.
- By completing the practical work, you will be learning the necessary skills to complete homework assignments.

**SUBMISSION DUE: 2025-03-10 before 23:59.**

- There shall be no extensions to the deadline.
- All practical work will be marked in the following practical session during the follow-up week.
- Verify the completeness of your upload.
- Incomplete uploads will be considered unsubmitted work.
- E-mail and/or late submissions WILL NOT be accepted.
- NO EXCEPTIONS WILL BE MADE FOR ANYONE.

**ACTIVITY DESCRIPTION AND DETAILS.**

For this practical, please ensure that you comply with the instructions provided. The stipulated instructions are mandatory and not optional.

For the following tasks you will have to use:

- ASP.NET Web Application (.NET Framework) for C#, Windows, Cloud and Web.
- ASP.NET Model-View-Controller (C#).

### TASKS - MVC:

1. You need to reuse the 'model' in the code example provided on ClickUP to complete this practical (Practical 2).
2. Add a property to the model called 'myLink' of type string.
3. Create new HTML pages: Create a new folder called HTML with 5 new html pages, one for each of your 4 friends in your study support group and one for yourself. The pages have a similar layout but the content of Background, Hobbies and Modules are different. The images are also different for each personal page.
4. Create a subfolder in the folder HTML called 'Images' where you load the images you will use in these pages.
5. Create an ActionResult in the PeopleController where a list is created and populated with the personal info of the five people. You already created this in practical 01 but you need to add a value for the myLink property. The link should reference the newly created html file of that person in the HTML folder. (e.g. myLink for Person01 should link to the html file of Person01). Hint: as these values will be passed to a View to display all the students (you already created this view in practical 01), the link value will be used in an HTML Helper. For that reason, the path should be in the form "~/HTML/Person01.html".
6. Change the View such that it displays all the students' info in your study group in a table: the student number, name, surname, e-mail address, and a button displaying the word "LINK" which opens the personal page of the person. When the table is displayed, the user can click on the link associated with a specific person to get to the personal page of the person with the detailed information. See below:

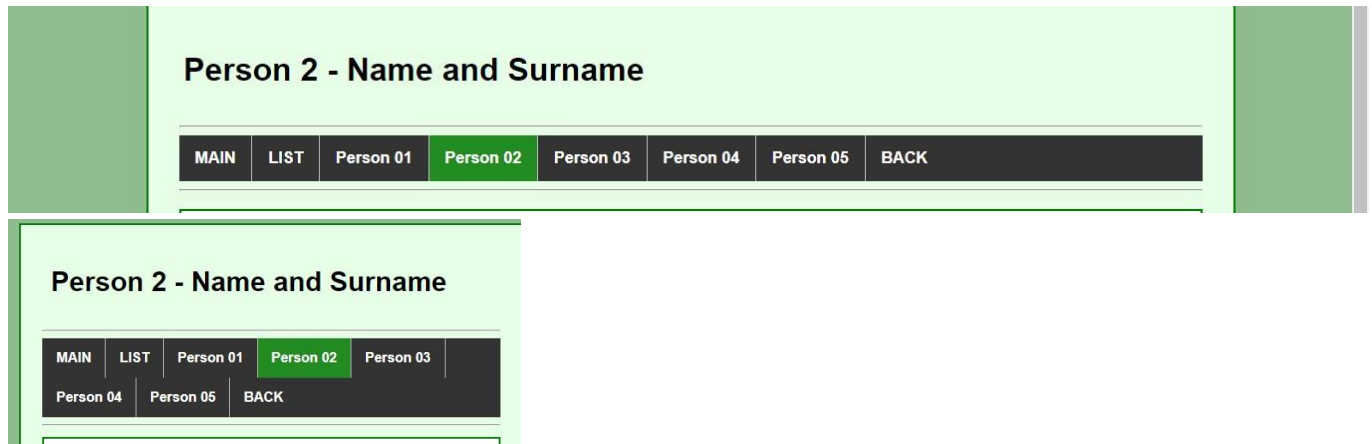
### TASKS - The HTML pages:

Student number	First Name	Last Name	Email address	Link to personal page
u0001	Name 1	Surname 1	person1@tuks.co.za	<a href="#">LINK</a>
u0002	Name 2	Surname 2	person2@tuks.co.za	<a href="#">LINK</a>
u0003	Name 3	Surname 3	person3@tuks.co.za	<a href="#">LINK</a>
u0004	Name 4	Surname 4	person4@tuks.co.za	<a href="#">LINK</a>
u0005	Name 5	Surname 5	person5@tuks.co.za	<a href="#">LINK</a>



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**The heading and menu items:**


7. The pages have as heading the name of the person as well as a menu with 8 links. The first link takes the user back to the main page, the second to the table with all the students information (see figure in number 6), and the last back to the previous page that was visited. The other five takes the user to a specific person's personal page.
8. The background colours of the links are black but the active link must have a different background colour than the rest. While the user hovers over a link (not the active one), the background colour must change to grey.
9. Each menu item has a right border except the last one.
10. The menu items are arranged horizontally. When the screen is resized, the items must move to the next line.

**TASKS – the HTML pages****The body**

11. The content consists of three sections: the first section covers the background and biography of the friend with an image situated at the left of the paragraph; the second section provides details on the hobbies of the person with an image situated at the right side of the paragraph; the last section is a table listing the first and second semester modules for which the person is registered. You can use any styling that you wish but the sections should be separated by padding and a border. The images must be placed as on the figure. Use the width, height and object-fit properties to style the images inline if necessary.
12. When the user hovers over the images, the image flips to the mirror image. (See figures below).

MAIN	LIST	Person 01	Person 02	Person 03	Person 04	Person 05	BACK								
<h3>Biography and Background</h3> <p>In this paragraph you have to give the following information about the person in your study group: 1) From where, 2) the degree he/she studies and 3) the reason why he/she studies that degree. For example: Mary Alexander was born in Polokwane, and went to school in Haenertsburg. She studies BIT(IS) with Statistics as other elective because she believes Data Science is the future. Add a photograph of your friend. Make sure that the photo is situated at the left of the text and does not flow into the hobbies section.</p> 															
<h3>Hobbies</h3> <p>In this paragraph you have to give a description of the hobbies of your friend. Insert a photo related to the hobby(ies) of your friend. The photo must be situated at the right of the text.</p> 															
<h3>Modules</h3> <p>In this section you have to provide the first and second semester modules your friend is enrolled for - in two columns.</p> <table> <thead> <tr> <th>Modules Semester 1</th> <th>Modules Semester 2</th> </tr> </thead> <tbody> <tr> <td>Module 11</td> <td>Module 21</td> </tr> <tr> <td>Module 12</td> <td>Module 22</td> </tr> <tr> <td>Module xx</td> <td>Module yy</td> </tr> </tbody> </table>								Modules Semester 1	Modules Semester 2	Module 11	Module 21	Module 12	Module 22	Module xx	Module yy
Modules Semester 1	Modules Semester 2														
Module 11	Module 21														
Module 12	Module 22														
Module xx	Module yy														

See mirror image below.

MAIN	LIST	Person 01	Person 02	Person 03	Person 04	Person 05	BACK
<h3>Biography and Background</h3> <p>In this paragraph you have to give the following information about the person in your study group: 1) From where, 2) the degree he/she studies and 3) the reason why he/she studies that degree. For example: Mary Alexander was born in Polokwane, and went to school in Haenertsburg. She studies BIT(IS) with Statistics as other elective because she believes Data Science is the future. Add a photograph of your friend. Make sure that the photo is situated at the left of the text and does not flow into the hobbies section.</p> 							

#### TASKS – the CSS styling file for the HTML pages

13. Create a separate CSS file containing the styling of the five different HTML files. This CSS file should be in the Content folder. Each HTML file should have a link referencing this file, situated in the <head> section of the HTML file. (e.g. `<link href="../Content/NewStyle.css" rel="stylesheet" />` TAKA

#### – the main menu

14. Change the main menu such that it has to menu items, given below. This should be done in the Layout.cshtml file.

Simple Starting Sample   List of People ▾

15. The menu item “List of People” has sub-menu items given below. Each of these items should take the user to the appropriate pages.



16. The Simple Starting Sample page can have any content.

17. You can play around with the styling. Use different text formats, background colours etc. As long as the menu items are arranged horizontally and the different sections separated by a border and margin.

## 02. [2024-03-11] S1P02 – Practical 02.

• **Practical Theme:** HTML and CSS within MVC •

**Due date:** 2024-03-18 before 23:59.

**Rubric [ \_\_\_\_ / 25 ]**

Student Number									Surname	Initials

REQUIREMENT [Marking].		DYSFUNCTION	PARTIAL	MAX
<ul style="list-style-type: none"> <li>Check the appropriate mark [ XX ].</li> <li>Add final mark and assign to top of rubric.</li> </ul>				
1.	New project with appropriate project name.	0	1	2
2.	Model with added property.	0	0	1
3.	Controller with appropriate model references (extra property included) and list data insert and load	0	0	1
4.	View which accesses model to display headings and content of table correctly (button with link displayed in last column).	0	1	2
5.	New folder created with five new HTML pages and one subfolder with images	0	0	1
6.	On each page: menu items working correctly	0	2	3
7.	On each page: menu items styled correctly (horizontally displayed, background colours correct, responsive)	0	2	4

8. On each page: three sections displayed correctly with border and margins.	0	1	2
9. Table placed and styled correctly	0	1	2
10. Images paced and styled correctly	0	1	2
11. Images change to mirror image when hovering over it.	0	0	1
12. Main menu changed correctly	0	1	2
13. External CSS file created and referenced correctly	0	1	2
<b>TOTAL</b>	<b>0</b>	<b>11</b>	<b>25</b>