



**COMPUTER SKILLS PROJECT**  
**CPSELA1 and CPSTRA1**

<b><u>PROGRAM</u></b>	: BET
<b><u>SUBJECT</u></b>	: COMPUTER SKILLS 1 <b>and</b> COMPUTER STUDIES 1
<b><u>SUBJECT CODE</u></b>	: CPSELA1 <b>and</b> CPSTRA1
<b><u>FACULTY</u></b>	: Engineering and Built Environment
<b><u>DATE</u></b>	: June 2025
<b><u>DURATION</u></b>	:
<b><u>WEIGHT</u></b>	: 100%
<b><u>TOTAL MARKS</u></b>	: 100
<b><u>ASSESSOR</u></b>	: Ms. K Mulaudzi
<b><u>MODERATOR</u></b>	:
<b><u>NUMBER OF PAGES</u></b>	: 4
<b><u>INSTRUCTIONS</u></b> : Answer all questions. Return your saved <b>work</b> to your lecturer through Blackboard.	

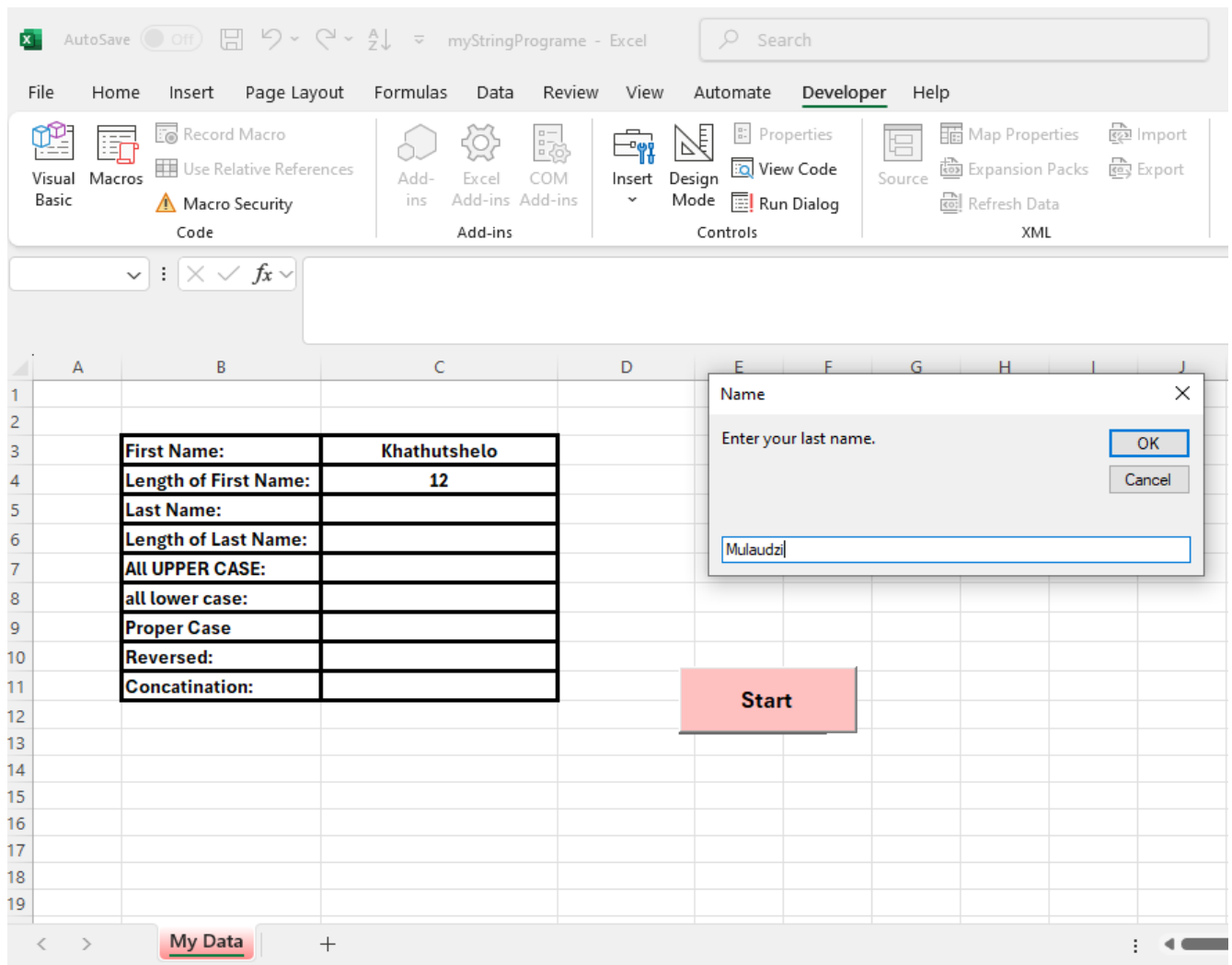
## Instructions to Candidates

1. This assignment consists of 3 pages with Part 1, 2 and 3 of the work to be completed (Complete all Parts of the work).
2. Candidates are expected to use **Microsoft Excel VBA, MS Access, and MS PowerPoint** when developing their project.
3. A soft copy of the work done must be submitted back through **Moodle**.
4. Group members should select their group leader, who will be responsible for each member's participation. This will include specifying those who did not participate.
5. Your initials, Surnames, and Student numbers should appear In your document (***Find space in your Excel Workbook and add all participants, leave out those who did not take part in your project***).
6. Each group should submit back their work as **one compressed zipped folder**. (*You need to create a folder first, in which you will save all your files*).
7. Plagiarism is not encouraged.
8. All your 3 files should be saved in a folder and sent back through **Moodle** in a compressed zipped folder. Rename your folder as **“Project Assignment (Your Group Name)”**
9. No individual work will be accepted, and no excuses for the late submission.
10. *Close all the files before sending them to your new zipped folder.... Please read that again <<<*
11. Do your part as a member of the group. [Minimum 3 members per group and maximum 6]

## PART 1: EXCEL VBA – Working with Strings

(50 marks)

1. Create a program that asks for the user's name and then outputs components of the name to a worksheet. The figure below shows the spreadsheet that you need to create. Format your spreadsheet to the best of your ability.



Specifically, the program will output the user's **first name** and **last name** along with the number of characters in each name to separate cells in the spreadsheet. The program will also **convert** the **user's name** to both all uppercase and all lowercase characters as well as reverse the order of the first and last name. The code is placed in the Click() event procedure of a **Command Button** control placed on the worksheet. The Name property of the Command Button control must not be changed and the Caption property to "Start". When the user clicks on the command button, code execution begins. After some variable declarations, the InputBox() function is used to prompt the user for his/her first and last name. You will notice that I am assuming the user enters his/her first name followed by one space and then the last name. Everything entered by the user is stored in the string variable username.

## Part2: MS ACCESS

(30 Marks)

**Problem:** Lancaster College runs an intramural sports program. One of the students attending Lancaster College is familiar with Microsoft Access and created a database to use to keep track of the program. This database keeps track of all aspects of the intramural program such as the equipment, the fields, the maintenance personnel, the coaches, the teams, the students and their participation. The database and the Coaches table have been created, but the Sport field needs to be added to the table. The records shown in Figure below must be added to the Coaches table. The Lancaster College Intramural Sports department would like to finish storing this data in a database and has asked you to help.

Note: To complete this assignment, you will be required to use the Data Files(attached in your files).

1. Open the **Support\_AC\_1\_Lab Lancaster College database** from the Data Files, and enable the content. Add a field **SportName** to the **Coaches table**. Assign the correct data type and a caption to the field.
2. Add the records shown in the Figure below.

Coach ID	FirstName	LastName	Office	Phone	Cell	SportName
17893	Lakisha	Black	WM-18	7178798787	7172451245	Track
18797	Bill	Brinkly	SM-1	7178798797	7175643751	Tennis
18798	Tom	Smith	SM-0	7178795467	7175432495	Wrestling
18990	William	Gutierrez	WM-10	7178798789	7174597655	Football
18999	Sharon	Stone	WM-10	7178794681	7174231021	Softball
78978	Frank	Terranova	SM-10	7178798798	7172031543	Pool
78979	Gail	French	SM-12	7178792543	7172468713	Ping Pong
79798	Daniel	Costner	SM-15	7178798793	7172403120	Swimming
79879	Gary	Faulkner	SM-18	7178795432	7178965532	Soccer
82374	Jean	Epperson	JK-18	7178795402	7179845411	Basketball

3. Use the concepts and techniques presented in this module to create queries for the following. Save each query.
  - a) Create a new query that joins the **Team** and **Field** tables and shows the availability of the fields for the teams and sports. Include **SeasonAvailable**, **Team ID**, **Sport Name**, and **Captain ID** in the query. Sort in Ascending order by **SeasonAvailable**
  - b) Find the **CoachID**, **FirstName**, **LastName**, and **Office** for coaches who work in offices that begin with SM.
  - c) Find all the students participating in pool activities. Include the **StudentID** and **SportName** fields.

- d) Find all the students who are academically qualified to participate in sports. Include their **ID, first and last names, and academic status**. The result should appear as shown in the Figure below.

SID#	FirstName	LastName	Academic
23421	Michael	Black	Yes
23468	Matthew	Stone	Yes
23749	Jeanie	Lowry	Yes
24324	Bill	Dillon	Yes
28349	Robbie	Uttleton	Yes
34872	Jimmy	Cox	Yes
56346	Sue	Silverberg	Yes
67237	Steven	Ellis	Yes
67678	Kirstie	Allison	Yes
67686	Candace	Carpenter	Yes
67687	Donald	Brinkley	Yes
67868	Michael	Brunger	Yes
67887	Ron	Fielden	Yes
72347	Ellen	Krithivasan	Yes
75978	Nell	Gahan	Yes
78779	Mason	Francois	Yes
78798	Daniel	Freeman	Yes
78978	Franklin	Curley	Yes
87879	Phillipe	Ochalla	Yes
87899	Michelle	Greer	Yes
87987	Shelley	Smith	Yes
89789	Daisy	Fuentes	Yes

- Import the table **Students Payments** Extra table attached in your data files. The first row of the workbook contains the column headings. **ISD** is the **primary key** for this table. Assign the name **Students Payments** to the table. Do not save the Import steps.
- The coaches are concerned that there is no backup activity if they are ill. They would like an additional **multivalued lookup** field, Alternative **SportsName**, added to the **Coach table**.
- The table below lists the **SportsName abbreviations** that coaches would like.

**Table 3-2 Product Type Abbreviations and Descriptions**

SportsName Abbreviations	SportsName
TRK	Track
TEN	Tennis
WRS	Wrestling
FTB	Football
STB	Softball
POL	Pool
PING	PingPong
SWIM	Swimming
SOC	Soccer
BKB	Basketball

7. Establish referential integrity between the **Student table** (the one table) and the **Participation table** (the many table). Cascade the update but not the delete
8. The accountant in charge of the student payments has asked for a calculated field that will figure the addition of the amount that the students have **paid** already plus their **balance due**. Add that calculated field to the appropriate table.
9. Create a following rule for the **Coach table** and save the changes: Make **Coach First Name** and **Last Name** required fields.
10. Add the data shown in Figure below to the **Coach table** for the Alternative **SportName** field. Resize the field to best fit.

Coach ID	First Name	Last Name	SN	Alternative SportName
17893	Lakisha	Black	Track	SOC
18797	Bill	Brinkly	Tennis	
18798	Tom	Smith	Wrestling	
18990	William	Gutierrez	Football	STB, WRS
18999	Sharon	Stone	Softball	
78978	Frank	Terranova	Pool	
78979	Gail	French	Ping Pong	
79798	Daniel	Costner	Swimming	POL
79879	Gary	Faulkner	Soccer	
82374	Jean	Epperson	Basketball	SOC, TEN, TRK

9. Change the field size for the Alternative **SportName** to 50.
10. In the **Participation table** change the **Student ID** field to Short Text 20.
11. Establish referential integrity between the **Student table** (the one table) and the **Participation table** (the many table). Cascade the update but not the delete

## Part3: MS PowerPoint (20 Marks)

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## Create and Design a Presentation about Your City's Composting Program

The Communications Manager in your town is promoting the new composting program for all residents. She would like you to help prepare a presentation for the local media planned for next month. You perform some research and learn that certain items can be composted, such as fruit and vegetable trimmings, coffee grounds, dry leaves, and newspaper. Two-thirds of these items should be brown; the other third should be green. Carbon-rich materials, including eggshells and citrus rinds, help keep the compost pile light and fluffy. Some items cannot be composted, such as meat, beans, grains, and plywood. Healthy compost also requires air and water. Positive aspects of composting include introducing microscopic organisms to the soil, reducing kitchen and yard waste, and adding nutrients to the lawn and garden. Use the concepts and techniques presented in this module to prepare a presentation for the media for about 6 slides. Review websites containing information regarding products that can and cannot be composted. Also learn about creating a compost bin and additional **benefits** of composting. Your presentation should include a title slide, shapes, and SmartArt with styles and effects. Format the title slide with a shape containing a picture fill. Include a hyperlink to a website that provides pictures of compost bins. Add a footer and slide transitions.

**NB:** Save your presentation as a **Presentation done by (Your Group Name)**.

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