 Province of the

EASTERN CAPE

EDUCATION

**DIRECTORATE SENIOR CURRICULUM MANAGEMENT (SEN-FET)**

**HOME SCHOOLING SELF-STUDY WORKSHEET**

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| **SUBJECT** | INFORMATION TECHNOLOGY PRACTICAL | **GRADE** | 10 | **DATE** | 27 April to 1 May 2020 |
| **TOPIC** | Decision Making – Consolidation Test | **TERM 1**  **REVISION** | (Please tick) | **TERM 2 CONTENT** | ✓ |
| **TIME ALLOCATION** | 1hr | **TIPS TO KEEP HEALTHY**  1. **WASH YOUR HANDS** thoroughly with soap and water for at least 20 seconds. Alternatively, use hand sanitizer with an alcohol content of at least 60%.  2. **PRACTISE SOCIAL DISTANCING** – keep a distance of 1m away from other people.  3. **PRACTISE GOOD RESPIRATORY HYGIENE**: cough or sneeze into your elbow or tissue and dispose of the tissue immediately after use.  4. **TRY NOT TO TOUCH YOUR FACE.** The virus can be transferred from your hands to your nose, mouth and eyes. It can then enter your body and make you sick.  5. **STAY AT HOME.** | | | |
| **INSTRUCTIONS** | Resources used// Most of this week’s work is taken from the New DBE practical book chapter 5   * Information Technology Practical Book Grade 10 , DBE * Past Exam Papers   Answer all questions |
|  | Follow the instructions below to create a Tic Tac Toe game.    a. Create an interface as shown alongside: Hint: Each block represents a button.  b. Create a global Boolean variable called bIsCross.  c. In the variable declaration, set the value of bIsCross to True, as shown in the code below.   |  | | --- | | Global variable starting value  bIsCross : Boolean = True; |   It is possible to assign starting values to global variables as the code above shows. This is very useful if you need one of your variables to have a value from the start of the application.  d. Create an OnClick event for the first button by double clicking the button.  e. In the OnClick event, create an IF-THEN-ELSE statement that checks if bIsCross is true.  f. If bIsCross is True, set the caption of the first button to ‘X’ and set the value of bIsCross to False.  g. Otherwise (using the ELSE statement), set the caption of the first button to ‘O’ and the value of bIsCross to True.  The code for the first button is shown below to help you.  First OnClick event   |  | | --- | | if bIsCross = True then  begin  btnOne.Caption := 'X';  bIsCross := False;  end  else  begin  btnOne.Caption := 'O';  bIsCross := True;  end; |   Looking at the code, you will see that the first condition checks the value of bIsCross. The Boolean variable  bIsCross is used to indicate if the next move should be a cross or a naught.  If the bIsCross is True, it sets the text of btnOne to “X” (a cross) and changes the value of bIsCross to False. If it  is not True, then the ELSE statement activates which sets the caption of the button to “O” and sets the value of  bIsCross back to True..  h. Save and test your application. If you created the code correctly, your first button should swap between “X” and “O” each time you press it.    i. In the OnClick event handler, set the caption and disable the button to prevent players from pressing it again.  j. Copy the code to create OnClick events for all the other buttons. Make sure you change the code for each event so that it changes the caption of the correct button! k. Save and test your application. You should now be able to play a game of Tic Tac Toe! | | | | |