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| animatedLOGO | **Assignment No. 02 Semester: Spring 2021**  **CS304- Object Oriented Programming** | | **Total Marks: 20**  **Due Date:** |
| **Uploading instructions:**   * Your assignment should be in .CPP format (Any other formats like scan images, PDF, zip, doc, rar and bmp etc. will not be accepted). * Save your assignment with your ID (e.g. bc000000000.CPP). * No assignment will be accepted through email.   **Rules for Marking:**  It should be clear that your assignment will not get any credit if:   * The assignment is submitted after due date. * The submitted assignment does not open, execute or file is corrupted. * Your assignment is copied from internet, handouts or from any other student.   (Strict disciplinary action will be taken in this case).  **Lectures Covered:**  This assignment covers Lecture # **7-15.** | | | |
| **Assignment** | |  | |
| Create a class TicTacToe that will enable you to write a complete program to play the game of tic-tac-toe. The class contains as private data a 3-by-3 double array of integers. The constructor should initialize the empty board to all zeros. Allow two human players. Wherever the first player moves, place an X in the specified square; place a “O” wherever the second player moves. Each move must be to an empty square. After each move, determine if the game has been won or if the game is a draw.  The game will also guide its players about the correct coordinates to enable them to identify their correct moves (see screenshot)    Your game should be careful about the overwriting of the previously occupied move.  For Example :  If the first location (0,0) is already occupied and the player is going for the same location, it should not overwrite that location. Instead, it should keep asking for the move until the player enters the valid location. (See screenshot)    Handle all major functionalities of the game through functions and make them member functions of the class TicTacToe:  **Class TicTacToe should include following public member functions:**  makeMove()  printBoard()  validMove()  gameStatus()  Note: you can add more member functions as per your game logic.  Your output should be same as sample output.  **Sample Output:**    **Best of luck!**  **NOTE:** Do not put any query on MDB about this assignment, if you have any query then email at [cs304@vu.edu.pk](mailto:cs304@vu.edu.pk). Furthermore, if any student’s assignment is found matched with any other student or from online forums then he/she will be awarded **ZERO** right away and strict disciplinary action will be taken against the student. | | | |
| **Deadline:** Your assignment must be uploaded/submitted within due date: | | | |