```cpp
// /
//------------------------------------------------------------------------------
//-----------------------------------------------
//Name                          Sai Chaitanya Kilambi
//Course                        CPSC 131 Data Structures, Fall, 2022
//Assignment                    No.2 question:1
//Due date                      09/07/2022
// Purpose:
// his program copies the data from a text file and calculates the total number of students, total number of female students, total number of graduate students and total number of undergrad students in orange campus
//------------------------------------------------------------------------------
//-----------------------------------------------
// list of libraries
//
//importing the required libraries

#include<iostream>

#include<fstream>


//function for copying the data from the file.txt file into a 3D array
void copyData(std::string f_name, int X[2][4][2]) {
    std::fstream f;
    f.open(f_name, std::ios::in);
    for (int i = 0; i < 2; i++) {
        for (int j = 0; j < 4; j++) {
            for (int k = 0; k < 2; k++) {
                f >> X[i][j][k];
            }
        }
    }
    f.close();
}
//function for calculating total number of students
int findTotalStud(int X[2][4][2]) {
    int total = 0;
    for (int i = 0; i < 2; i++) {
        for (int j = 0; j < 4; j++) {
            for (int k = 0; k < 2; k++) {
                total += X[i][j][k];
            }
        }
    }
    return total;
}

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//function for calculating total number of Female students
int findFemales(int X[2][4][2]) {
    int total = 0;
    for (int i = 0; i < 2; i++) {
        for (int j = 0; j < 4; j++) {
            total += X[i][j][0];
        }
    }
    return total;

}

//function for calculating total number of Graduate students
int findGrads(int X[2][4][2]) {
    int total = 0;
    for (int j = 0; j < 4; j++) {
        for (int k = 0; k < 2; k++) {
            total += X[1][j][k];
        }
    }
    return total;
}

//function for calculating total number of undergraduate students at orange campus
int findunderGradOrange(int X[2][4][2]) {
    int total = 0;
    for (int k = 0; k < 2; k++) {
        total += X[0][1][k];
    }
    return total;
}

//main function
int main() {
    int stud[2][4][2];//created a 3D array

    //calling copy function
    copyData("file.txt", stud);

    //calling the function to calculate the total number of students
    int totalStud = findTotalStud(stud);
    std::cout << "The total number of Students: " << totalStud << std::endl;//print statement

    //calling the function to calculate the total number of female students
    int totalFemales = findFemales(stud);
    std::cout <<"The total number of Female Students: "<< totalFemales <<
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          std::endl;//print statement
 90
 91      //calling the function to calculate the total number of Graduate
           students
 92      int totalGrads = findGrads(stud);
 93      std::cout <<"The total number of Graduates: "<< totalGrads <<
           std::endl;//print statement
 94
 95      //calling the function to calculate the total number of UnderGraduate
           students at orange campus
 96      int underGradOrange = findunderGradOrange(stud);
 97      std::cout <<"The total number of Under Graduates of Orange Campus: "
           <<underGradOrange << std::endl;//print statement
 98
 99      return 0;
100  }
```