```cpp
/*****************************************************************************
* AUTHOR     : Andrew Gharios and Jiaqi Li
* STUDENT ID : 1449366 and 1220875
* LAB # 15   : Advanced selection in C++
* CLASS      : CS1A
* SECTION    : MW: 8am
* DUE DATE   : 4/19/21
*****************************************************************************/
#include <iostream>
#include <iomanip>
#include <cstring>
using namespace std;


int main()
{
    /*****************************************************************************
     * CONSTANTS
     * ---------------------------------------------------------------------------
     * OUTPUT - USED FOR CLASS HEADING
     * ---------------------------------------------------------------------------
     * PROGRAMMER : Programmer's Name
     * CLASS      : Student's Course
     * SECTION    : Class Days and Times
     * LAB_NUM    : Lab Number (specific to this lab)
     * LAB_NAME   : Title of the Lab
     * PROBLEM    : Problem number.
     *****************************************************************************/

    const char PROGRAMMER[] = "Andrew Gharios and Jiaqi Li";
    const char CLASS[]      = "CS1A";
    const char SECTION[]    = "MW 8:00a - 10:30a";
    const int  LAB_NUM      = 15;
    const char LAB_NAME[]   = "Advanced selection in C++";
    const int  PROB_NUM     = 5;

    const int  STRN_SIZE    = 30;

    int rank;
    char output[STRN_SIZE];

    /*****************************************************************************
     * OUTPUT - Class Heading
     *****************************************************************************/
    cout << left;
    cout << "*********************************************\n";
    cout << "* PROGRAMMED BY : "  << PROGRAMMER << endl;
    cout << "* "      << setw(14) << "CLASS"    << ": " << CLASS    << endl;
    cout << "* "      << setw(14) << "SECTION"  << ": " << SECTION  << endl;
    cout << "* LAB #" << setw(9)  << LAB_NUM    << ": " << LAB_NAME << endl;
    cout << "* "      << setw(14) << "PROBLEM " << ": " << PROB_NUM << endl;
    cout << "*********************************************\n\n";
    cout << right;


    /*****************************************************************************
     * Code - Code takes in your rank number and compares it to the classes
     * using the conditional operator and outputs your rank class.
     *****************************************************************************/
    cout << "Enter your rank number(-1 to exit): ";
    cin  >> rank;
    cin.ignore(10000, '\n');
```

```
63
64      while(rank > -1)
65      {
66          (rank <= 3)? strncpy(output, "Lower", STRN_SIZE)
67                     : (rank >= 7)? strncpy(output, "Upper", STRN_SIZE)
68                     : strncpy(output, "Middle", STRN_SIZE);
69          cout << output << endl;
70
71          cout << "Enter your rank number(-1 to exit): ";
72          cin  >> rank;
73          cin.ignore(10000, '\n');
74      }
75
76      return 0;
77  }
78
79
```