```
// Program Shell1 prints appropriate messages based on a
// grade read from the keyboard.

#include <iostream>
using namespace std;


int main ()
{

    int grade;

    cout  << "Enter an integer grade between 50 and 100."
          << "  Press return. "  << endl;
    cin  >> grade;

    if  /* TO BE FILLED IN  */
        cout  << "Congratulations!"  << endl;
    return 0;
}
//*************************************************************

// Program Shell1a prints appropriate messages based on a
// grade read from the keyboard.

#include <iostream>
using namespace std;


int main ()
{

    int grade;

    cout  << "Enter an integer grade between 50 and 100."
          << "  Press return. "  << endl;
    cin  >> grade;

    if  (grade>=90 && grade<=100)
        cout  << "Congratulations!"  << endl;
    if  (grade>=80 && grade<=89)
        cout  << "Try harder"  << endl;
    if  (grade>=70 && grade<=79)
        cout  << "Average"  << endl;
    if  (grade>=60 && grade<=69)
        cout  << "Need help"  << endl;
    if  (grade<=59)
        cout  << "Try again"  << endl;


    system("PAUSE");
    return 0;
}

//*************************************************************
// Program Shell1b prints appropriate messages based on a
// grade read from the keyboard.

#include <iostream>
using namespace std;
```

```
int main ()
{

    int grade;
    char letterGrade;

    cout  << "Enter an integer grade between 50 and 100."
          << "  Press return. "  << endl;
    cin  >> grade;

    if  (grade>=90 && grade<=100)
        {
        cout  << "Congratulations!"  << endl;
        letterGrade='A';
        }
    else if  (grade>=80 && grade<=89)
        {
        cout  << "Try harder"  << endl;
        letterGrade='B';
        }
         else if  (grade>=70 && grade<=79)
         {
        cout  << "Average"  << endl;
        letterGrade='C';
          }
              else if  (grade>=60 && grade<=69)
              {

              cout  << "Need help"  << endl;
              letterGrade='D';
              }
                   else if (grade <= 59)
                   {

                   cout  << "Try again"  << endl;
                   letterGrade='F';
                   }
                   else
                   cout << "Faulty data." << endl;
  cout<<"Your letter grade is "<<letterGrade<<endl;

    system("PAUSE");
    return 0;
}
//*************************************************************
// Program Shell1c prints appropriate messages based on a
// grade read from the keyboard.

#include <iostream>
using namespace std;


int main ()
{

    int grade;
    char letterGrade;
```

```
    cout  << "Enter an integer grade between 50 and 100."
          << "  Press return. "  << endl;
    cin  >> grade;
if (cin) //to test the state of the cin stream for invalid data
{
    if  (grade>=90 && grade<=100)
        letterGrade='A';
    else if  (grade>=80 && grade<=89)
        letterGrade='B';
         else if  (grade>=70 && grade<=79)
              letterGrade='C';
              else if  (grade>=60 && grade<=69)
                   letterGrade='D';
                   else if (grade <= 59)
                        letterGrade='F';
                   else
                   cout << "Faulty data." << endl;


 // cout<<"Your letter grade is "<<letterGrade<<endl;
 // letterGrade ='z';

  switch (letterGrade)
  {
     case 'A': cout<<"Your letter grade is "<<letterGrade<<endl;
               cout  << "Congratulations!"  << endl;
               break;
     case 'B': cout<<"Your letter grade is "<<letterGrade<<endl;
               cout  << "Try harder"  << endl;
               break;
     case 'C': cout<<"Your letter grade is "<<letterGrade<<endl;
              cout  << "Average"  << endl;
               break;
     case 'D': cout<<"Your letter grade is "<<letterGrade<<endl;
               cout  << "Need help"  << endl;
               break;
     case 'F': cout<<"Your letter grade is "<<letterGrade<<endl;
               cout  << "Try again"  << endl;
               break;
     default : cout<<letterGrade<<" is not a valid letter grade.";
               break;
 }

}
else
   cout << "Faulty data.....goodbye" << endl;

    system("PAUSE");
    return 0;
}
```