Student: Alice Johnson (ID: W0202001)

PROG2007 - Programming II — Assignment 3

Name: Alice Johnson ID: W0202001

Structs, Strings and Pointers

Create a student report card application using structs, pointers, and proper file organization.

TASK REQUIREMENTS:

Part 1: Student Record Creation

- Define StudentRecord struct with:
  - StudentID (int)
  - LastName (char[21])
  - FirstName (char[21])
  - Array of 6 CourseRecords (struct with CourseName char[21] and Mark float)
  - AverageMark (float)
- Create function to initialize student records for 2 students via user input

Part 2: Average Calculation

- Develop function to calculate and set AverageMark for each student

Part 3: Report Generation

- Create function to print formatted report cards showing:
  - Student ID, First/Last Name
  - All courses with marks
  - Calculated average

General Requirements:

- Organize code in src/ and inc/ folders
- studentRecord.c for operations
- studentRecord.h for prototypes
- Clear comments and consistent formatting

SAMPLE OUTPUTS

Student input for 1 student:

```
C:\PROG2007\ASSIGN3\cmake-build-debug\ASSIGN3.exe
Please enter the Student ID:
2733240
Please enter the last name for Student #2733240:
Johnson
Please enter the first name for Student #2733240:
```

```
Alice
Please enter the course name:
TRPO5000
Please enter the mark for TRPO5000:
70
Please enter the course name:
PROG2007
Please enter the mark for PROG2007:
88
Please enter the course name:
ROCK2002
Please enter the mark for ROCK2002:
99
Please enter the course name:
JUMP0500
Please enter the mark for JUMP0500:
83
Please enter the course name:
ASDF2222
Please enter the mark for ASDF2222:
70
Please enter the course name:
PROG1700
Please enter the mark for PROG1700:
73

Process finished with exit code 0
```

Report card for 1 student:

```
C:\PROG2007\ASSIGN3\cmake-build-debug\ASSIGN3.exe
*****************************REPORT CARDS*****************************

Student: ID:2733240          Name: Alice Johnson
-------------------------------------
Course name: TRPO5000             Course mark: 70
Course name: PROG2007             Course mark: 88
Course name: ROCK2002             Course mark: 99
Course name: JUMP0500             Course mark: 83
Course name: ASDF2222             Course mark: 70
Course name: PROG1700             Course mark: 73

Grade average: 80.50


Process finished with exit code 0
```

REMEMER: your assignment should accept inputs & output report cards for 2 students.

Student: Bob Smith (ID: W0202002)

PROG2007 - Programming II — Assignment 3

Name: Bob Smith ID: W0202002

Structs, Strings and Pointers

Create a student report card application using structs, pointers, and proper file organization.

TASK REQUIREMENTS:

Part 1: Student Record Creation

- Define StudentRecord struct with:
  - StudentID (int)
  - LastName (char[21])
  - FirstName (char[21])
  - Array of 4 CourseRecords (struct with CourseName char[21] and Mark float)
  - AverageMark (float)
- Create function to initialize student records for 4 students via user input

Part 2: Average Calculation

- Develop function to calculate and set AverageMark for each student

Part 3: Report Generation

- Create function to print formatted report cards showing:
  - Student ID, First/Last Name
  - All courses with marks
  - Calculated average

General Requirements:

- Organize code in src/ and inc/ folders
- studentRecord.c for operations
- studentRecord.h for prototypes
- Clear comments and consistent formatting

SAMPLE OUTPUTS

Student input for 1 student:

```
C:\PROG2007\ASSIGN3\cmake-build-debug\ASSIGN3.exe
Please enter the Student ID:
3853261
Please enter the last name for Student #3853261:
Smith
Please enter the first name for Student #3853261:
```

```
Bob
Please enter the course name:
PROG1700
Please enter the mark for PROG1700:
80
Please enter the course name:
ASDF2222
Please enter the mark for ASDF2222:
68
Please enter the course name:
LMNO0321
Please enter the mark for LMNO0321:
59
Please enter the course name:
LIME0420
Please enter the mark for LIME0420:
79

Process finished with exit code 0
```

Report card for 1 student:

```
C:\PROG2007\ASSIGN3\cmake-build-debug\ASSIGN3.exe
*****************************REPORT CARDS*****************************

Student: ID:3853261          Name: Bob Smith
---------------------------------------
Course name: PROG1700             Course mark: 80
Course name: ASDF2222             Course mark: 68
Course name: LMNO0321             Course mark: 59
Course name: LIME0420             Course mark: 79

Grade average: 71.50


Process finished with exit code 0
```

REMEMER: your assignment should accept inputs & output report cards for 4 students.

Student: Charlie Brown (ID: W0202003)

PROG2007 - Programming II — Assignment 3

Name: Charlie Brown ID: W0202003

Structs, Strings and Pointers

Create a student report card application using structs, pointers, and proper file organization.

TASK REQUIREMENTS:

Part 1: Student Record Creation

- Define StudentRecord struct with:
  - StudentID (int)
  - LastName (char[21])
  - FirstName (char[21])
  - Array of 5 CourseRecords (struct with CourseName char[21] and Mark float)
  - AverageMark (float)
- Create function to initialize student records for 3 students via user input

Part 2: Average Calculation

- Develop function to calculate and set AverageMark for each student

Part 3: Report Generation

- Create function to print formatted report cards showing:
  - Student ID, First/Last Name
  - All courses with marks
  - Calculated average

General Requirements:

- Organize code in src/ and inc/ folders
- studentRecord.c for operations
- studentRecord.h for prototypes
- Clear comments and consistent formatting

SAMPLE OUTPUTS

Student input for 1 student:

```
C:\PROG2007\ASSIGN3\cmake-build-debug\ASSIGN3.exe
Please enter the Student ID:
1212940
Please enter the last name for Student #1212940:
Brown
Please enter the first name for Student #1212940:
```

```
Charlie
Please enter the course name:
GOLD4350
Please enter the mark for GOLD4350:
76
Please enter the course name:
QWER4000
Please enter the mark for QWER4000:
65
Please enter the course name:
PROG2007
Please enter the mark for PROG2007:
67
Please enter the course name:
DBAS1000
Please enter the mark for DBAS1000:
86
Please enter the course name:
UVWX0050
Please enter the mark for UVWX0050:
69

Process finished with exit code 0
```

Report card for 1 student:

```
C:\PROG2007\ASSIGN3\cmake-build-debug\ASSIGN3.exe
******************************REPORT CARDS******************************

Student: ID:1212940          Name: Charlie Brown
---------------------------------------
Course name: GOLD4350             Course mark: 76
Course name: QWER4000             Course mark: 65
Course name: PROG2007             Course mark: 67
Course name: DBAS1000             Course mark: 86
Course name: UVWX0050             Course mark: 69

Grade average: 72.60


Process finished with exit code 0
```

REMEMER: your assignment should accept inputs & output report cards for 3 students.

Student: Dana White (ID: W0202004)

PROG2007 - Programming II — Assignment 3

Name: Dana White ID: W0202004

Structs, Strings and Pointers

Create a student report card application using structs, pointers, and proper file organization.

TASK REQUIREMENTS:

Part 1: Student Record Creation

- Define StudentRecord struct with:
  - StudentID (int)
  - LastName (char[21])
  - FirstName (char[21])
  - Array of 4 CourseRecords (struct with CourseName char[21] and Mark float)
  - AverageMark (float)
- Create function to initialize student records for 3 students via user input

Part 2: Average Calculation

- Develop function to calculate and set AverageMark for each student

Part 3: Report Generation

- Create function to print formatted report cards showing:
  - Student ID, First/Last Name
  - All courses with marks
  - Calculated average

General Requirements:

- Organize code in src/ and inc/ folders
- studentRecord.c for operations
- studentRecord.h for prototypes
- Clear comments and consistent formatting

SAMPLE OUTPUTS

Student input for 1 student:

```
C:\PROG2007\ASSIGN3\cmake-build-debug\ASSIGN3.exe
Please enter the Student ID:
4393373
Please enter the last name for Student #4393373:
White
Please enter the first name for Student #4393373:
```

```
Dana
Please enter the course name:
TRPO5000
Please enter the mark for TRPO5000:
58
Please enter the course name:
ASDF2222
Please enter the mark for ASDF2222:
60
Please enter the course name:
HJKL1500
Please enter the mark for HJKL1500:
79
Please enter the course name:
SNOW3999
Please enter the mark for SNOW3999:
100

Process finished with exit code 0
```

Report card for 1 student:

```
C:\PROG2007\ASSIGN3\cmake-build-debug\ASSIGN3.exe
*****************************REPORT CARDS*****************************

Student: ID:4393373          Name: Dana White
---------------------------------------
Course name: TRPO5000             Course mark: 58
Course name: ASDF2222             Course mark: 60
Course name: HJKL1500             Course mark: 79
Course name: SNOW3999             Course mark: 100

Grade average: 74.25


Process finished with exit code 0
```

REMEMER: your assignment should accept inputs & output report cards for 3 students.