Please refer to Blackboard (at the top of Course Materials) for submission guidelines.

Automatic 0 if these guidelines are not followed:
**-DO NOT FORGET TO INCLUDE A README FOR EACH PROGRAM**
**-MAKE SURE YOUR PROGRAM IS PROPERLY INDENTED AND COMMENTED**
**-DO NOT CODE EVERYTHING IN MAIN (MAKE FUNCTIONS AND CLASSES AS APPROPRIATE)**
**-INCLUDE A UML DIAGRAM FOR EACH PROGRAM**

## Problem 1 (40 points)-Write a program.  Submit a file named height.cpp

Amusement parks have minimum heights for their rides.  Create a program that adds users to the line of a ride in an amusement park if they meet the minimum height requirement (given in inches).

- Create three classes:
    - An *amusement park* class
    - A *ride* class
    - A *rider* class (people riding the rides)

It should work with the following main **(DO NOT MODIFY-NO CREDIT IF YOU MODIFY):**

```
int main()
{
   Rider r1("Yaris", 45); //name, height in inches
   Rider r2(49); //height in inches

   Amusement_park a1(3); //3 is the number of rides in the amusement park
   a1.get_ride(1).add_line(r1);  //add a rider to the line of a ride

   Amusement_park a2(2); //2 is the number of rides in the amusement park
   a2.get_ride(1).add_line(r2); //add a rider to the line of a ride

   return 0;
}
```

**Possible Sample Run 1 (your program does not have to match the following exactly, but should have the same functionality):**

~~~Amusement Park Info~~~
Ride 1- Enter minimum ride height and ride name:
40 ride1

Ride 2- Enter minimum ride height and ride name:
50 ride2

Ride 3- Enter minimum ride height and ride name:
60 ride3

-Adding rider to line.


~~~Amusement Park Info~~~
Ride 1- Enter minimum ride height and ride name:
75 ride1

Ride 2- Enter minimum ride height and ride name:
76 ride2

-Sorry can't add rider-too short.


## Problem 2 (60 points)-Write a program.  Submit a file named money.cpp

XYZ Airport has two currency exchange offices.  ABC Conversions services the north and east side of the airport while DEF Conversions services the south and the west side of the airport.

**Notes:**
-You should have a minimum of 2 classes (you decide which classes and how many)
-You decide which currencies are available for conversion

**<u>Possible Sample Run 1 (your program does not have to match the following exactly, but should have the same functionality):</u>**

Enter name of exchange office and manager: ABC Conversions Armin
Enter name of exchange office and manager: DEF Conversions Jep

********
Hello traveler!  Where are you in the airport?  North
********
Welcome to ABC Conversions.  Please contact the manager Armin if you have any complaints.
What currency are you converting to dollars and how much?  200 yen
Here you go:  $---- //the amount in dollars should be displayed here (based on your calculation)

********

Hello traveler!  Where are you in the airport?  West
********

Welcome to DEF Conversions.  Please contact the manager Jep if you have any complaints.
What currency are you converting to dollars and how much?  300 dinar
We do not convert the dinar currency here.  Sorry.



********

Hello traveler!  Where are you in the airport?  West
********

Welcome to DEF Conversions.  Please contact the manager Jep if you have any complaints.
What currency are you converting to dollars and how much?  300 peso
Here you go:  $---- //the amount in dollars should be displayed here (based on your calculation)



********

Hello traveler!  Where are you in the airport?  exit
********

$$$Total dollars given out:  $ --- //total amount of dollars dispensed should be displayed
Exiting…