Assessment Brief/Cover Sheet

Class Group:	CADVS1 and CADVS2		
Assessor:	Maura O'Halloran		
Component Title and Code:	Object Oriented Programming, 6N2108		
Assessment Technique:	Skills Demo	**Weighting:**	30%
Title:	Skills Demo #1		
Issue Date:	9th January 2025	**Submission Date:**	30th January 2025
Learning Outcomes Assessed:	LO2, LO3 and LO5		

Guidelines: Fully address each point in the requirements section of this brief.

Assessment Criteria	**Available Marks**
Program design	8
Program implementation	12
Quality of application	6
Testing of application	4

Learner Name:	Matthew

I confirm that:

1. I have been provided with information about Cork ETB's assessment and appeals procedures and my responsibilities with regard to assessment.
2. The assessment work produced by me is all my own original work.

Note to Learners:

- Plagiarism is the presentation of someone else's ideas, arguments, concepts or work as your own by failing to reference or acknowledge it properly. All such work must be acknowledged. Any learner, who presents another's work as their own, will be investigated in line with Cork ETB Assessment Malpractice procedures and may be awarded a zero grade.
- Learners should keep copies of all assessment submitted, where applicable.

Project Taxi Time

By Matthew O'Connell Cantillon

Table of Contents

Design

Making a booking Algorithm

1. Get number of passengers
2. Determine required vehicle type based on passengers
3. Find available vehicles of the required type
4. IF no vehicles available - Display message and return
5. Display of available vehicles
6. Get vehicle selection
7. Find available qualified drivers
8. IF no drivers available - Display message and return
9. Display available drivers
10. Get driver selection
11. Set vehicle and driver as booked
12. Get travel distance
13. Calculate estimated fare
14. Store booking in active Bookings
15. Display booking confirmation

Main Program Algorithm

1. Create Dispatch System instance
2. LOOP until exit:
   - Display menu
   - Get user input
   - TRY:
     - Convert input to integer
     - IF valid choice (1-5):
       - Execute chosen operation
       - IF choice is 4:
         - Break loop
     - ELSE:
       - Display error message
   - CATCH invalid input:
     - Display error message
3. End program

Complete Booking Algorithm

1. IF no active bookings:
   - Display message and return
2. Display active bookings
3. Get booking selection
4. Get payment details:
   - Credit card number
   - Customer name
5. Find selected vehicle and driver
6. Generate receipt with:
   - Customer details
   - Vehicle details
   - Driver details
   - Fare amount
   - Masked credit card
   - Timestamp
7. Reset vehicle and driver availability
8. Remove booking from activeBookings
9. Display completion message