CORK
UNIVERSITY
BUSINESS
SCHOOL

IS6200/IS6143

CA 2 - Coding Project

Due: 17th November 2025

Project Context

CUBS Banking Limited is a fictitious financial institution offering banking services to organisations around the world but mainly serves the EU and US markets. It provides current accounts in various currencies as per Table 1 below. As the business operates using multiple currencies, it must ensure that appropriate conversion rates are applied to each transaction based on the current conversion rates, example values shown in Table 1 below. As CUBS Banking Limited wishes to expand their operations, it is critical that new currencies can be added to their area of operations as required.

CUBS Banking Limited has hired you, in the capacity of IT consultant, to create a prototype application that can manage the accounts of clients, allowing clients to view their account balances, make transfers between accounts using the current exchange rate, and apply appropriate fees as noted in Table 2.

Project Minimum Requirements

Using object-oriented programming, create a Python console application that allows for the management of currency accounts and the transfer of funds between accounts, while applying fees as appropriate. Below are the minimum requirements:

Properties of the user class include:

- Client Name
- Contact Email
- Client Country
- Account ID
- List of Currencies
- List of Balances

Your user class should contain the following methods.

- Create a new user and set balances as needed
- Deposit funds into the appropriate account
- Convert funds between account, deducting a fee where appropriate
- Withdraw funds from the appropriate account

For this project, you are expected to have a minimum of 3 currencies available for conversion. You may use the below example or any realistic conversion rate you see fit, please document this in your submission.

Your project code should be free of syntax errors and should be able to manage errors without resulting in crashes/exceptions.

Hint: You may wish to match indexes between currency and balance lists to maintain a link between both lists.

Advanced Requirements

Because this is a prototype, you have the freedom to propose additional functionality and demonstrate your coding skills.

Could you extend the class or add some new features that might improve the application?

Use comments to explain your code and demonstrate where you are using different object-oriented techniques.

Table 1

Currently Name	Sample Conversation Rate to EURO
EURO	1
DOLLAR	1.1
POUND STERLINE	0.9

Table 2

Fee Category	Fee %
Value less then 100 euro (or equivalent)	1%
Value between 100 and 500 euro (or equivalent)	2%
Value greater then 500 euro (or equivalent)	3%