

Exercises – Inheritance:

Question 1 is the assessed question

1. This question uses inheritance to describe different types of sale in a shop. There are 3 classes to represent the different sale types. The classes should be stored in the same file (Python module) named 'sale_module.py'.

1.1. Define a class named **Sale** that:

- contains an instance variable that stores the amount of the sale and accessor and mutator methods.
- contains a method named `__str__` that outputs an English sentence to describe the amount of the sale e.g. "Sale amount: £20.50".
- includes an appropriate constructor.

1.2. Define a class named **CashSale** that:

- is derived from **Sale**
- redefines the `__str__` method to indicate that the payment was made in cash
- includes an appropriate constructor.

1.3. Define a class named **CreditCardSale** that:

- is derived from **Sale**
- contains instance variables for the name on the card, expiration date, and credit card number. The instance variables should have appropriate getters and setters.
- includes appropriate constructor(s).
- redefines the `__str__` method to include all credit card information in the printout.

1.4. Define a program named **SaleTester** that:

- has a main method that creates at least two **CashSale** and two **CreditCardSale** objects with different values and calls `__str__` for each.

Further practice questions can be found in any of the course textbooks.