

Inft2012 Application Programming – Notes for week 11

Lab exercises

Remembering that learning to program takes lots of practice, you are strongly advised to finish these exercises before next week's lab class, bringing to the class any problems you encounter.

1. What can you deduce about the class `Die` from reading the following lines of code? What methods and/or properties does it appear to have, and what do you think they might do?

```
Die die1, die2;  
die1 = new Die(Die1PictureBox, Brushes.Green);  
die2 = new Die(Die2PictureBox, Brushes.Blue);  
die1.roll(3);  
die2.roll();
```

2. Write a program that simulates a bank account. The state of the account is continually displayed (red if negative, black if positive). Provide methods for deposits and withdrawals.
3. Create a class `Customer`, with attributes for customer name, address, telephone number, and amount owing, and with methods `BuysStuff` and `PaysBill`.

Create a user interface to create an object of class `Customer`. The interface will allow for the calling of `BuysStuff` and `PaysBill`, and will automatically update the amount owing field on the user interface when either of these happens.

4. Create a `HospitalPatient` class with attributes for name, ward, bed, sex, date of birth, admission date, doctor, diagnosis, treatment, and discharge date.

Design a user interface to create instances of the patient.

You can use simple or complex constructors or properties to create and initialise your instances.