

Classes - an introduction

Object

Grouping of data and operations/behaviour.

Introducing classes

Where do the objects come from?

Objects are representations of things our program deals with.

Let's say we are to write an email client. When thinking about this program, we would see that the program should deal with contacts, messages etc.

So the program will probably use objects which represent some contact at some point. All contacts share the same characteristics. Messages also share the same characteristics; they all have a subject, some recipients and a message body.

A deeper look at a Message

Since all messages share the same characteristics and actions (recipients, send, cancel, save etc) we have identified “a class of objects”.

When we have decided what data and behaviour belongs to a message, we can write down this specification in some format and we will from now on refer to this as a class.

A class must have a name which is descriptive and a suitable name for the message class is simply Message.

The Message class

This is one way the Message class could look:

Message
subject : String messageBody : String recipients[] : Contact
send() : void cancel() : void save() : void

Message as a Java class

A class represented as below can be translated to Java but more on that later...

Message
subject : String messageBody : String recipients[] : Contact
send() : void cancel() : void save() : void