A university has students taking ICT, Law and Business courses. In the Faculty of ICT, there are Certificate, Diploma and a Degree courses (BSC-IT). BSC-IT has three stages: Stage 1, Stage 2 and Stage 3

I. Briefly explain how inheritance can assist in the capture and processing of student details in the above scenario

Inheritance assists us to create classes which are derived from other classes, so that they automatically include some of its "parent's" members, plus its own. For example, we are going to suppose that we want to declare the series of courses offered; ICT, law and business. They all have certain common properties, such as all can be described by means of student, name and their registration numbers. This could be represented in in the world of classes with a class student from which we could derive the other courses which the students are taking.