**CS5030 Software Engineering Principles**

**Case study: An online auction forum**

Consider the development of an application for an online auction forum. You can think of this application as a simplified version of auction sites such as eBay (https://www.ebay.co.uk). Users of the application include buyers and sellers. Users have to register with the system providing their name, email, address, date of birth and phone number before they can use it for buying or selling. However, users can browse items listed with the system without registering. Sellers can log in, post listings of items to be sold, view their listings, change the status of items listed and log out. Buyers can log in, view their purchase history, place bids on listed items, pay for any items they win and log out. Each listing contains the name of the item, description, condition (new / used), photo, starting price, reserve (if any), date listed, length of auction (in days), postage cost and status of listing (draft, in progress, ended). Only in-progress listings are displayed to users who browse the system. The system should generate appropriate notifications for buyers and sellers as the status of auctions and items change. The auction system also interacts with two external systems: a payment system and a postage calculation system.