A yacht charter company requires a web-based system to manage aspects of its holiday charter business.

> *There are a number of customers, each of whom may book a number of holiday charters, with each charter booked by an individual customer. A holiday charter may involve one yacht only, but each yacht may be involved in many holiday charters. A holiday charter may visit several ports and each port will be visited by many holiday charters. Most ports have several yachts based in them (although a few smaller ports have no yachts based in them) with each yacht based in just a single home port.*

Information to be held and manipulated include:

- *the name, nationality, email address, phone number and id number of each customer.*
- *the name, type, model, home port, number of berths and cost of hire per day of each yacht.*
- *the name, phone number, email address and number of docking places at each port.*
- *the charter id, start date and duration of each charter, and the visit id, expected date of arrival and duration of stay at each port visited.*

Business processes to be supported include the ability to:

- *add details of a new customer together with the start date and duration of the charter they have booked, but without specifying the yacht to be used or the ports to be visited.*
- *list the total length of stay, between two given dates, of yachts in the fleet in each port.*
- *get a list of yachts (by name) visiting their home port between two given dates, together with the date of arrival and the length of the stay.*
- *list the ports visited by a given customer together with the date of arrival and length of stay, ordered by date.*

remove a yacht temporarily for a period of time (e.g., for servicing) and get a list of yachts that are not available,