NORTH COAST ADVENTURES

William Neil and his wife Ruth run an extremely successful campsite and caravan park which is situated in a very central location on the scenic North Coast area of Co. Antrim. William and Ruth own a significant amount of land and wish to put it to good use in order to support their business enterprise. They are considering several future developments.

The campsite and caravan park are serviced by a full range of amenities including a small shop that opens daily and stocks essential items and fresh local produce such as eggs, vegetables and fish. On site, there is also a fully supervised play park and indoor games area for children as well as a television lounge. The site is managed by William and Ruth, their son David and four full time staff, as well as up to seven part time staff depending on seasonal demand.

Ruth manages the shop. She deals with all aspects of the stock as well as the staff rotas and till reconciliation. Ruth finds stock management challenging, especially the issues that stem from 'wastage' of fresh items.

Visitors booking in advance can rent a fully equipped tent or caravan already on site. These come in a range of capacities and cater for a minimum of two people and a maximum of eight. Prices are based on basic, standard and deluxe ratings which vary depending on the dates of the holiday period. Bookings made for the months of June, July and August are the most expensive while December, January and February cost least.

There is a 5% reduction on the total booking cost for bookings made at least twelve weeks in advance of the holiday dates. Advance bookings are based on a daily rate with a minimum three night stay, for the type of facility required, the required rating and the dates of the holiday period. Bookings can be made up to six months in advance and all bookings must be accompanied by a 10% deposit. The deposit is non-refundable if the booking is cancelled less than six weeks before the start date.

Visitors can also choose to book pitches for their own tents or caravans in advance. There is also a 5% reduction on the total booking cost for bookings made at least twelve weeks in advance of the holiday dates. Again these bookings must be accompanied by a 10% non-refundable deposit if the booking is cancelled less than six weeks before the start date. A daily rate is applied, based on a minimum three night stay, the space occupied and whether the pitch has electricity and water supplied.

In addition, the site caters for visitors who are touring and wish to stay for an indefinite number of nights. These people pay on a daily basis depending on availability. The daily rate charged is 5% greater than that charged for an advance booking. Visitors generally use their own tents and caravans but are also able to rent tents and caravans already on site if there is availability.

William manages all bookings and payments but recognises that with the growth in the business his manual system has become inadequate. He has double booked visitors several times and has billed a few customers incorrectly, mixing up dates and totals.

William and Ruth also hire out camping equipment to their visitors. This equipment ranges from chairs, tables, sleeping bags and awnings to all sorts of outdoor gear, wetsuits and hiking boots. These are hired on a daily basis and costs are very reasonable ranging from £3 for a wetsuit to £8 for an outside table and four chairs. Payment for hire items is added to the final bill but visitors must pay an immediate £10 deposit that is refunded when items are returned in good condition. William is responsible for managing the hiring aspect of the business. He is the first to admit that he has little control of his stock and that his hire records are poorly maintained. Items sometimes go missing and if information such as visitor details and items hired are not properly noted, there is little chance of recovery.

William would like visitors who book in advance to hire items at the time of booking. He can see that this would be very useful in terms of managing stock and billing customers.

In 2012, David also started daily sight-seeing trips for visitors using either of the two site mini buses. One of these accommodates nine people (including the driver) and the other is for seventeen people including the driver.

At present, David, two of the full time employees and one part time member of staff are licensed to drive the minibuses. David must ensure availability of a driver for each session, seven days a week. David is not available on Tuesday afternoon or Thursday afternoon because of his involvement with cycling lessons.

None of the drivers is permitted to do more than two tours each day and these must not be consecutive. Tours run 4 times daily, two in the morning and two in the afternoon. They must be booked at least 24 hours in advance. Last minute bookings are allowed if there are vacant seats, at an additional cost of £1. If the small minibus has been arranged for a tour and there are last minute requests, David will only use the bigger minibus if at least three more people want to book. Visitors have the choice of two routes with different destinations. There is a choice of a one and a half hour trip with a 15 minute break (8.30 -10.15 and 2.00-3.45) or a two and a half hour trip with a 30 minute break (10.45-1.45 and 4.00-7.00). The cost of a tour is either £10 for an adult and £5 for a child each for the one and a half hour tour, or £12 for an adult and £6 for a child for the two and a half hour trip. These tours have proved to be both popular and successful. In fact David can see that at peak season, it would be worthwhile renting another minibus to increase the service even if it meant having to pay another driver. Visitors wishing to book a tour must pay at the time of booking. If a visitor cancels on the day of the tour, then 50% of the payment is forfeited.   For an extra £3, a visitor can avail of picnic services that include soft drinks, tea, coffee and snack, packaged in the shop using shop items and packed on the mini bus. Records must be kept of all journeys and billing.

David also organises cycle tours of the area. These tours run on alternate days and cyclists must demonstrate proficiency and use appropriate cycling apparel. David has a stock of fifteen bicycles that are for used for the tours. Participants may hire a bicycle for the tour at a cost of £5. Participants pay £10 for the tour and must be at least sixteen years old. Visitor details must be thoroughly recorded before each trip

and disclaimers must be signed by everyone for insurance purposes. Each tour must be accompanied by one of four suitably qualified members of staff and only ten people are allowed on each tour. A tour lasts for approximately two hours depending on the level of fitness of the cyclists and the weather conditions. A tour will not take place unless there are at least five participants. Tours operate once in the morning at 10am and in the summer months, in the evening at 6.30 as well. Ensuring staff availability, maintaining records of participants as well as billing is very time consuming and the effort involved could be minimised with a proper system.

David has made inroads into the provision of cycling lessons on site with graded cyclist certification for children. He intends to develop this properly in the next year as he can see that it is an excellent means of occupying children. He is having plans drawn up for a proper cycling track area on site. Parents are delighted with the opportunity this affords for them to do other things. David has a stock of fifteen bicycles that are only used for lessons.

Cycling lessons are conducted in small group settings with no more than ten children accompanied by two members of staff. David is a fully qualified instructor who can prepare a child for certification but he is only available on Tuesdays or Thursdays because of his other tour commitments. Lessons are available from 2pm until 5pm Monday to Friday for a half hour session for each child. There are three categories of lesson, Beginner, Intermediate and Advanced at a cost of £3, £4 and £5 respectively. Lessons must be booked at least 24 hours in advance and must be accompanied by the payment. If a child does not attend, then the payment is lost. Again, suitable records must be maintained of participants and payments. David would also like proper records of those children who have achieved certification at each level of proficiency.

David is qualified to conduct certification testing and must register candidates for the various levels as required. Candidates pay £20 for a test and if successful, David will apply for a certificate that will be sent directly to the candidate's home address. Half of the fee goes to the business and the other half is the cost of certification.

William would like visitors to be able to book sightseeing tours, cycling tours and cycling lessons in advance so that schedules could be properly maintained and billing effectively managed.

After looking closely at the way bicycle schemes operate in places like London and Dublin, William has also spotted the potential for developing this aspect of the business although on a much smaller scale.

William has a stock of thirty five bicycles reserved exclusively for hire. Visitors can hire a bike from him for a day for a flat rate of £5 per day with a £15 refundable deposit. He has set up five docking stations at a range of popular locations around the area for people to leave the bikes if they wish. Each docking station can accommodate 10 bicycles. On hiring a bike, details are recorded and visitors are issued with a coded 'token' that releases a bike from the site docking station. When the bike is docked at any other location, the 'token' is released. This means that bikes can be picked up by visitors and left at specified points and visitors can pick and choose where they want to go in their own time. They can return to their location by other means if they wish without the necessity to cycle all the way back. Return of the coded token indicates that the bike is safe and after records are checked, their deposit is refunded. Visitors must indicate which docking station they have left their bicycle when they return their tokens. When the number of bicycles for hire is down to five, the site van is sent out to retrieve five bicycles from the nearest docking station providing that at least two bicycles remain at each station. William realises that this facility could be expanded in a more efficient manner.

William and Ruth are very pleased with the growth of their business but recognise the need to continue to develop their administrative procedures in order to keep pace with developments and to meet the demands of their visitors.

William and Ruth are very aware that they manage everything manually. This includes all bookings, finances, stock for the shop, stock for hire, bookings for bus tours, bookings for cycling tours, payments and now the development of the cycling facilities. Because of the sheer volume of work involved, problems with procedures inevitably arise. These include inaccurate records, incomplete records, billing issues,

poor stock control, problematic bookings and the fact that there are no adequate reports to inform good decision making.

William and Ruth want a proper system that will manage the various strands of their business and allow for additional options to be added. They need to be able to identify key information quickly and provide suitable reports within each option. They believe that they must do something now in order to pull their administration together appropriately before it becomes completely unmanageable.

PROBLEM

William and Ruth would ultimately like a system that could be built with each different strand of the business managed separately but linked into an overall structure. They believe this would allow them to add on new developments in a gradual way and they are prepared to have the system developed an option at time.

TASK

You must produce a solution presented on appropriate electronic media, such as CD or DVD, to the specified problem that includes the following:

- A detailed project plan that reflects the actual project development;
- An explanation and justification of your approach to the development and design of your solution;
- A detailed User Requirements Specification;
- The design of your solution;
- An explanation of how you tested the design;
- An explanation of how you developed a desktop solution using a RDMS;
- The development and implementation of your solution using a selected software tool to connect the required database to the GUI for the specified problem;
- Documentation of the solution including the code to create and populate the supporting database; code to develop the solution; and an instructional user guide;
- A test plan;
- Sample documented test outcomes;

- An evaluation of your test procedures;
- A critical evaluation of your solution to the problem;
- A reflective evaluation of your own performance.