**Case Study: CS1**

Quest Entertainment Company (QEC) has an automated ticketing system. QEC has various venues like movie theaters, sports grounds and open air theaters etc. This ticketing system uses computer processing and large databases to manage the distribution of tickets to entertainment and sporting events. Customers can buy their tickets from many locations, including the box office at the event site, railway stations, bus terminus, and authorized retail locations. In some instances online point-of-sale terminals are used to record the transaction and print the ticket, while at other locations the transaction is recorded and the customer receives the ticket by mail. The system maintains a master house calendar for the events. When a request is made, the system is designed to determine automatically whether the performance requested by the customer event and date is actually scheduled, sometimes customers have misinformation about the dates and time of event. In this case system will suggest alternate events on the same date or different dates for the requested performance.

Once the customer selects a date and event, the system next assigns seats from its master-seating chart. As seats are given, the master chart is updated to indicate the availability of seats. Ticket prices vary according to the event, time, and location within the theater or sport complex. They may also vary according to the type of category, for example, for senior citizens tickets to be priced lower than others. Some events also provide student discounts for tickets; they may be complete event booking or group booking also. Some tickets are distributed on a complementary basis by the management-perhaps to event sponsors. Even in these situations manager must request tickets through the system. A record of all sales transactions including the origin and date of the transaction, the name of identification number of the seller and the event details, such as the price and category of the ticket is automatically accumulated within the system. The record is used in auditing payments and sales.

**Case Study: CS2**

Real time, convergent billing solutions allow service providers to use a single system for multiple access technologies and billing methods. Prepaid, post-paid, wireless, cable, broadband, satellite, data, voice, or SMS - the right convergent solution can drive subscriber acquisition, increase revenues and improve profitability.

Nepal Telecom is willing to implement a Convergent Real Time Billing System (CRTB). The system will integrate to all the telecom services such as mobile services (including both GSM and CDMA with prepaid and postpaid), PSTN landline telephone and ADSL, GPRS, 3G and 4G internet systems.

A customer can have one or more of these services from NTC. The CRTB integrates of all service charges onto a single customer invoice and a unified view of the customer. Customer should call a call center and should get complete account information for all the services opted. Customer receives a single bill and makes a single payment for all the services. For example, if a customer has RS.1000 in his prepaid mobile account, he will be able to use this balance to other services (e.g., can transfer RS 300 to pay PSTN telephone bill).

**Case Study: CS3**

Ministry of Health and Population is willing to computerize its system. This new system will be able to tell the population of the country, zone and district and even of the ward of specific place. The system will update its data in monthly basis so that the birth rate and death rate can be easily seen.

The home page is displayed when a person enters to the system. Administrators can enter to the admin panel by logging in with an ID and a password. He/she has privileges to enter and modify the data into the database.

On the other hand, normal users can view the data but not modify them. They can also visualize the data in graphical form with animated charts, maps as well as in tabular form based on their selection of data. Besides, they can also view the forecasted data.

**Case Study: CS4**

“Easy Cash” system is a simple native gadget for smart phone that will have full featured personal finance management tool using the touch screen technology.

Easy Cash is an easy way to create and track personal incomes and expenses. It’s a way to replace all personal expense spreadsheets with one easy to use daily expense manager that is accessible from the phone. One can track all his expenses by any category he decides to use as well as track how much he is spending against the budgets he had set. One can specify how much he want to spend for each budget (lunch, groceries, clothes, entertainment etc.) as well as how long the budget will last and whether or not the balance is to be restarted at the beginning of each month or on the pay day. Once one has his budgets setup, the app will show a graphic representation of how much he has already spent and how much he has left. One can also view daily, weekly or monthly reports of his spending habits to see how he is doing over time.

The user will need to manually enter all transactions but the application does make it easy for user to quickly enter a new transaction from a gadget on the home screen.

**Case Study: CS5**

Examination Control Division (ECD) of IOE is willing to implement a computerized system. The system allows the students to view their results and can also print their mark sheets by entering their roll number and date of birth. The system will display examination routines/schedules and will automatically send sms and email to each of the authorized college representatives when some results are published. The system will also display comparative ranking of colleges according to their academic results. Students can apply online re-totaling request to the ECD via this system. System will authorize the required payment via bank voucher number or through the credit card.

**Case Study: CS6**

Tourist Guide System is aimed to the people with Smart Phones helps them to figure out nearest hotels, restaurants with discount offers in service and also some nearby star hotels. Supposing that tourists are unknown about the services available nearby them, the application will give the shortest path to reach up to their aimed star hotel from their current location. It will be developed as an application for android OS based phone which utilizes the GPS service of the phone system and Google Maps with graph database to show the effective route to the destination. The discount offers and the services available in restaurants will be stored in the database. As the discount offers provided by the hotels and restaurants differs from day to day, application will provide information to the users about the restaurant or hotel with maximum discount offer with other services available. For finding the shortest path, the positions of certain places will be stored in the database which will be used as nodes to form a graph for finding the shortest path. The location of the application user will be found out by the GPS service of the phone system. After obtaining the destination, the effective path is calculated based on the position and route available. This effective/optimum path is then plotted in the map and provided to the user.

**Case Study: CS7**

Decision Support System (DSS) will help to those peoples who are in dilemma in making decision. Anyone who wants to use system must be registered first. The system will display a home page at first. The user has to fill up the registration form. After the registration process gets completed, the user will be able to login to the system. It will validate the user and provides an input panel to input his problem. The user will be also requested to enter options and criteria with priority levels numbering form 1 to 9. Now the system performs pairwise comparisons and forms a judgment matrix so that top ranked options will be suggested to the user.