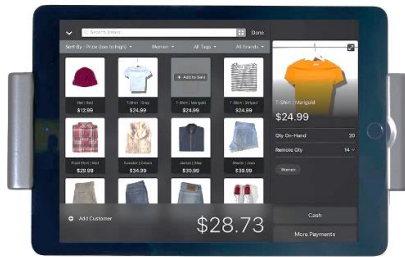# CS 5800 - Course Project Topic 1

- **Bronco Store Management (BSM)**

CPP wants to convert its current sale system into an automated Bronco Store Management (BSM) system (POS) to ensure effective control of the sales while reducing operational costs. Currently, all customers, orders, and products are maintained by hand. For each order, a manual receipt is provided to the customer including header information such as the date, time, and customer name as well as the products, quantities, and corresponding individual and total prices. A copy of those receipts is made so that users can later feed this data into spreadsheets. Then, retail transaction information is manually retrieved into financial reports for business analysis. Some of the general complaints about the current system include:

- Slow customer and product search processes while orders are being created.
- Redundant information of professors who are also students.
- Lack of reports that consolidate sales per customer and/or period.
- Inaccuracy of the prices of products being charged at the counter.
- Inaccuracy of the information included in the spreadsheets from the receipts.
- Unavailability of an online sales application.

The automated BSM system should address the problems mentioned before through a *software-based solution*. In particular, a *desktop application* with a *graphical user interface* should be developed to provide services such as: costumer registration (students, professors), product registration, order registration/management, and intelligent revenue report. The system should (requirements):

- eliminate any redundancies in the customer registration process
- allow a different discount scheme for students and professors (% of the order)
- allow historical price information of products
- print (screen) receipts when orders are completed
- provide a report (screen) with consolidate revenue information by customer and period

In addition, the system should also include an *online (Web) component* for order registration. This component should be fully integrated with the offline component (no redundancies allowed). There should be a status indicating where the order was generated with the following options: "counter", "online-pending", "online-complete". This status should change from "online-pending" to "online-complete" when the customer picks up his/her products.

Processes that should not be addressed: inventory control and shipping, login/user privileges.

CS 5800 - Course Project Topic 2

- **Bronco Recreation Complex Management (BRCM)**

CPP wants to convert its current recreation complex system into an automated Bronco Recreation Complex Management (BRCM) system to ensure effective control of the services provided while reducing operational costs. Currently, all customers, visits, and recreational activities (bodybuilding, swimming, dance, martial arts, etc.) are maintained by hand. For each visit, a manual receipt is provided to the customer including header information such as the date, time, and customer name as well as the recreational activities, quantities, and corresponding individual and total prices. A copy of those receipts is made so that users can later feed this data into spreadsheets. Then, service transaction information is manually retrieved into financial reports for business analysis. Some of the general complaints about the current system include:

- Slow customer and recreational activity search processes while visits are being created.
- Redundant information of professors who are also students.
- Lack of reports that consolidate visits per customer and/or period.
- Inaccuracy of the prices of activities being charged at the counter.
- Inaccuracy of the information included in the spreadsheets from the receipts.
- Unavailability of an online visit application for activity reservation.

The automated BRCM system should address the problems mentioned before through a *software-based solution*. In particular, a *desktop application* with a *graphical user interface* should be developed to provide services such as: costumer registration (students, professors), recreational activity registration, visit registration/management, and intelligent revenue report. The system should (requirements):
- eliminate any redundancies in the customer registration process
- allow a different discount scheme for students and professors (% of the visit)
- allow historical price information of recreational activities
- print (screen) receipts when visits are completed
- provide a report (screen) with consolidate revenue information by customer and period

In addition, the system should also include an *online (Web) component* for visit registration – to be used for activity reservation. This component should be fully integrated with the offline component (no redundancies allowed). There should be a status indicating where the visit was generated with the following options: "counter", "online-pending", "online-complete". This status should change from "online-pending" to "online-complete" when the customer completes his/her visit.

Processes that should not be addressed: activity availability, login/user privileges.

CS 5800 - Course Project Topic 3

- **Bronco Centerpointe Dining Management (BCDM)**
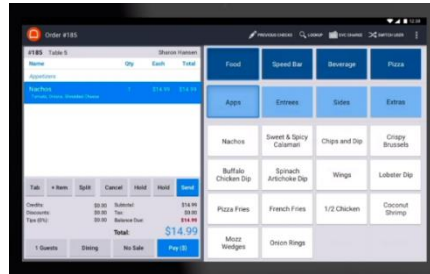
CPP wants to convert its current restaurant system into an automated Bronco Centerpointe Dining Management (BCDM) system to ensure effective control of the sales while reducing operational costs. Currently, all customers, dishes/beverages, and orders are maintained by hand. For each order, a manual receipt is provided to the customer including header information such as the date, time, and customer name as well as the dishes/beverages, quantities, and corresponding individual and total prices. A copy of those receipts is made so that users can later feed this data into spreadsheets. Then, sales transaction information is manually retrieved into financial reports for business analysis. Some of the general complaints about the current system include:

- Slow customer and dish/beverage search processes while orders are being created.
- Redundant information of professors who are also students.
- Lack of reports that consolidate sales per customer and/or period.
- Inaccuracy of the prices of dishes/beverages being charged at the counter.
- Inaccuracy of the information included in the spreadsheets from the receipts.
- Unavailability of an online sales application.

The automated BCDM system should address the problems mentioned before through a *software-based solution*. In particular, a *desktop application* with a *graphical user interface* should be developed to provide services such as: costumer registration (students, professors), dish/beverage registration, order registration/management, and intelligent revenue report. The system should (requirements):
- eliminate any redundancies in the customer registration process
- allow a different discount scheme for students and professors (% of the order)
- allow historical price information of dishes/beverages
- print (screen) receipts when orders are completed
- provide a report (screen) with consolidate revenue information by customer and period

In addition, the system should also include an *online (Web) component* for order registration – to be used for dish/beverage reservation. This component should be fully integrated with the offline component (no redundancies allowed). There should be a status indicating where the order was generated with the following options: "counter", "online-pending", "online-complete". This status should change from "online-pending" to "online-complete" when the customer picks up his/her products.

Processes that should not be addressed: inventory control, login/user privileges.