

Continuing Case: Personal Trainer, Inc.

Personal Trainer, Inc. owns and operates fitness centers in a dozen Midwestern cities. The centers have done well, and the company is planning an international expansion by opening a new “supercenter” in the Toronto area. Personal Trainer’s president, Cassia Umi, hired an IT consultant, Susan Park, to help develop an information system for the new facility. During the project, Susan will work closely with Gray Lewis, who will manage the new operation.

Background

During requirements modeling for the new system, Susan Park met with fitness center managers at several Personal Trainer locations. She conducted a series of interviews, reviewed company records, observed business operations, analyzed the BumbleBee accounting software, and studied a sample of sales and billing transactions. Susan’s objective was to develop a list of system requirements for the proposed system.

Fact-Finding Summary

- A typical center has 300–500 members, with two membership levels: full and limited. Full members have access to all activities. Limited members are restricted to activities they have selected, but they can participate in other activities by paying a usage fee. All members have charge privileges. Charges for merchandise and services are recorded on a charge slip, which is signed by the member.
- At the end of each day, cash sales and charges are entered into the BumbleBee accounting software, which runs on a computer workstation at each location. Daily cash receipts are deposited in a local bank and credited to the corporate Personal Trainer account. The BumbleBee program produces a daily activity report with a listing of all sales transactions.
- At the end of the month, the local manager uses BumbleBee to transmit an accounts receivable summary to the Personal Trainer headquarters in Chicago, where member statements are prepared and mailed. Members mail their payments to the Personal Trainer headquarters, where the payment is applied to the member account.
- The BumbleBee program stores basic member information, but does not include information about member preferences, activities, and history.
- Currently, the BumbleBee program produces one local report (the daily activity report) and three reports that are prepared at the headquarters location: a monthly member sales report, an exception report for inactive members and late payers, and a quarterly profit-and- loss report that shows a breakdown of revenue and costs for each separate activity.

During the interviews, Susan received a number of “wish list” comments from managers and staff members. For example, managers want more analytical features so they can spot trends and launch special promotions and temporary discounts. Managers also want better information about the profitability of specific business activities at their centers, instead of bottom-line totals.

Several managers want to offer computerized activity and wellness logs, fitness coaching for seniors, and various social networking options, including e-mail communications, fitness blogs, Facebook, and Twitter posts. Staff members want better ways to handle information about part-time instructors and trainers, and several people suggested using scannable ID cards to capture data.

Tasks

1. Draw a DFD that shows how data will be stored, processed, and transformed in the TIMS system.
2. Draw an FDD that shows the Personal Trainer’s main functions. Also draw a use case diagram that represents the interaction between a user and the proposed TIMS system.

3. Using the information gathered during fact-finding, develop a requirements checklist that includes examples in each of the five main categories.
4. Gray is not familiar with the TCO concept. How should Susan explain it to him?