Monash University
Information Technology

FIT1013 Digital Futures: IT for Business

Assignment 2 Developing an application using Excel (VBA) (35%)

Part 1: Sunday, 25 September 2022, 4:30 PM

Part 2: Friday, 14 October 2022, 4:30 PM

Group Assignment (Maximum of 3 students)

Part 2 Requirements

Functionality

1. A user form named "Complete Rental" will be shown when the corresponding button in the main menu is clicked. It allows the details of a collection, i.e. the return of a specific dress to be recorded.

    i.   Each collection is corresponding to a specific dress rented (see Rental worksheet). A list of dresses currently rented (not returned yet) will be made available for selection. (Note: RentalID N0104 with DressID 105 has two sizes, they are considered different dresses).
    ii. The collection date/time can be entered manually.
    iii. Users can select the return condition – either Good, Damaged, and Dirty.
    iv. The cost of the rental (including the delivery charge) will be calculated and updated to the TotalAmount column.

    The cost of rental is calculated based on the type of dress, duration of rental and a delivery cost. Rental less than 24 hours will be charged for a day plus a delivery fee. For rental more than 24 hours, the due time is 12 noon. For example, a Kate Spade's Flower Blossom dress is delivered at 11.30am on 23rd December, and returned on 29th December 9am will be charged for 5 day only, cost of rental is $175 x 5 days + $15 delivery cost, will come to a total cost of $890.

    As this rental is more than 24 hours, this is how it looks like:
    23/12/2021 11:30 - 24/12/2021 12:00 - 1 day - $175
    24/12/2021 12:00 - 25/12/2021 12:00 - 1 day - $175
    25/12/2021 12:00 - 26/12/2021 12:00 - 1 day - $175
    26/12/2021 12:00 - 27/12/2021 12:00 - 1 day - $175
    27/12/2021 12:00 - 28/12/2021 12:00 - 1 day - $175
    28/12/2021 12:00 - 29/12/2021 9:00 - 0 day - $0

    The column TotalAmount is calculated based on the assumption that only one dress is returned.

    v.   The form should include a 'Complete' button that transfers the details to the corresponding row in the Rental worksheet, updates dress quantity in the corresponding sheet, then returns to the previous form i.e. "Main Menu" form.
    vi. Remove the highlights (e.g. yellow colour) for the DateReturned, ReturnCondition and TotalAmount columns for this rental.
    vii. The deliver-collect tracking system used by SAF's driver is a mobile application that can scan the dress code during collection, and the collection data can be saved as an Excel file. An example file

is given to you – "*FIT1013 A2_2022_track_collect.xlsx*". The CEO of SAF, Mark would like to have a button that can import these collection data from the Excel file and transfer to the Rental worksheet (i.e. in replacing the manual steps above). Name the button "Import from Collection".

(9 marks)

2. A user form named "Display Rental" will be shown when the corresponding button in the main menu is clicked. It allows users to choose a customer from a list, then input a start date and end date. It will then present all completed rentals between those dates, for the selected customer. A button is to be included on this user form for users to print the data to a PDF file (name it as <CustomerID>Display<Today's Date>, e.g. 11203Display20220925). Design the user form in such a way that it will display the following details:
    The date on which the invoice is produced, customer first and last name, dress name, date rented, date returned, return condition, rental amount for each dress, and a grand total for the period.
    (3 marks)

Quality of Solution
Some considerations:
1. Appropriate use of graphic controls and consistency in the design of your user forms.
2. Appropriateness of variable and constant declarations and usage, e.g. are conventions followed, are variables declared in suitable places, etc.? Is the code concise, easy to read and understand?
3. Excellent use of decision structures and repetition structures.
4. Include data validation to ensure the user only enters valid information, and report any meaningful error messages.
5. Robustness - does the solution cope well with human errors, e.g. protected the sheet or range that are supposed to be read only by a data entry clerk?
6. Use appropriate indentation in your code so that it is easily readable. Include appropriate documentation (or comments) in your code.
    (6 marks)

Demonstrations
Demonstrate your application to your tutors in Week 12.
    (2 marks)

Files Provided
- FIT1013 A2_2022_track_collect.xlsx