

Credit Card Management Project

Executive Summary

Credit cards are one of the most important things in our daily lives. They bring a lot of convenience to our lives. However, it is really annoying to remember the days that I need to pay my bill, how much should I pay, and which card should I pay for. Therefore, for my last VBA project, I would like to create a program that will allow a user to input all of his credit card information and spending information, and all the data will automatically stores in the excel workbook so that a user can arrange his payment by simply checking the workbook.

I was planning to use a web query to input the credit card spending statement, but there is some other information cannot be found on the internet. So I chose to use the user form and let user to input the information required. Users can simply insert their credit card information and their spending or payment date, amount, and then the program will automatically show the related data on the workbook, such as days left to make payment, bill amount, etc.

Implementation

In this document, I will walk through the entire process of my program in detail, step by step, and use tables to show my sub procedures in my solution. There are three user forms (two of them requires user to input information, one explains how to use the forms), two spreadsheets for data storage (“General info” and “info. Statement”), and a module (create a new menu selection for user to active forms) contained in the program.

Add In Menu Bar

At the very start, on the menu bar I add an AddIn menu contains “Add New Credit Card”, “Usage Record”, and “Credit Card Management”(instruction) three selections which can active the forms. The code below allows the AddIn showing when the workbook opens.(I think I can also use buttons assigned with macro instead.) I can not capture a picture of the menu, otherwise, I can show it.

```

Sub auto_open()
  On Error Resume Next
  MenuBars(xlWorksheet).Reset

  With Application.CommandBars("worksheet menu bar").Controls.Add(Type:=msoControlPopup)
    .Caption = "My Tool"
    .BeginGroup = True

    With .Controls.Add(Type:=msoControlPopup, before:=1)
      .Caption = "Credit Card Management"
      .BeginGroup = True

      With .Controls.Add(Type:=msoControlButton)
        .Caption = "Add New Credit Card"
        .FaceId = 37
        .OnAction = "AddNewCreditCard"
      End With

      With .Controls.Add(Type:=msoControlButton)
        .Caption = "Spend or Rpayment Record"
        .FaceId = 37
        .OnAction = "UsageRecord"
      End With

      With .Controls.Add(Type:=msoControlButton)
        .Caption = "Instruction"
        .FaceId = 37
        .OnAction = "Instruction1"
      End With
    End With
  End With
End Sub

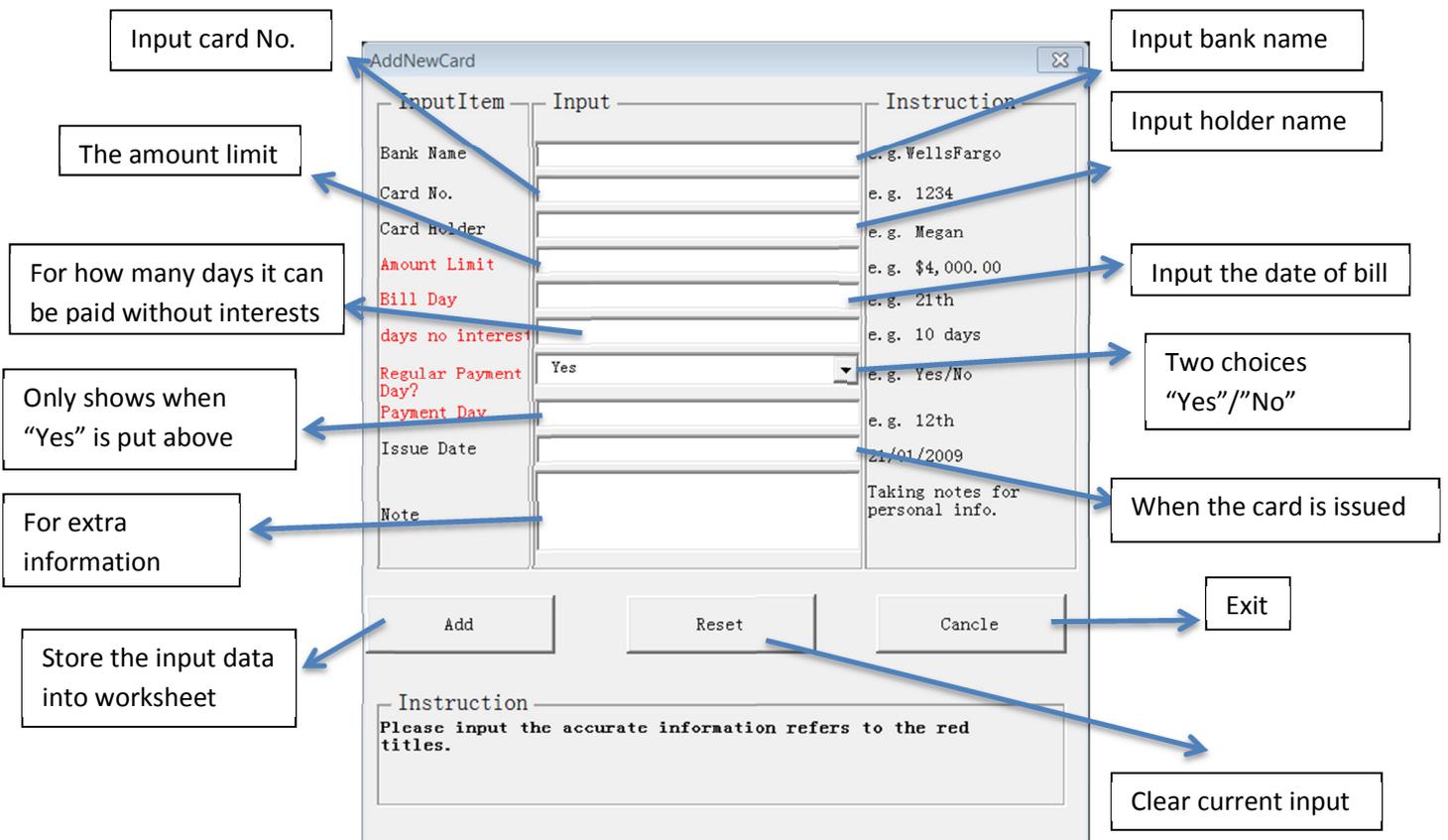
```

Add New Card Form

A user form is a best tool to input and store data for users. The Add New Card Form allows user input their credit card information and stores it in the worksheet, including bank name, card number, holder name, issue date and bill date, etc. The following table details the different parts of the form and sub procedures.

| Sub Procedure or Event | Functions |
|------------------------|---|
| UserForm_Activate() | calls the Initialize sub procedure to initialize the form when the form opens |
| Initialize () | clears the content for new input |
| InputData() | selects the range on the worksheet to store input data |
| PaymentDay_Change() | shows the payment date input box if the user chooses "Yes" in the combo box |

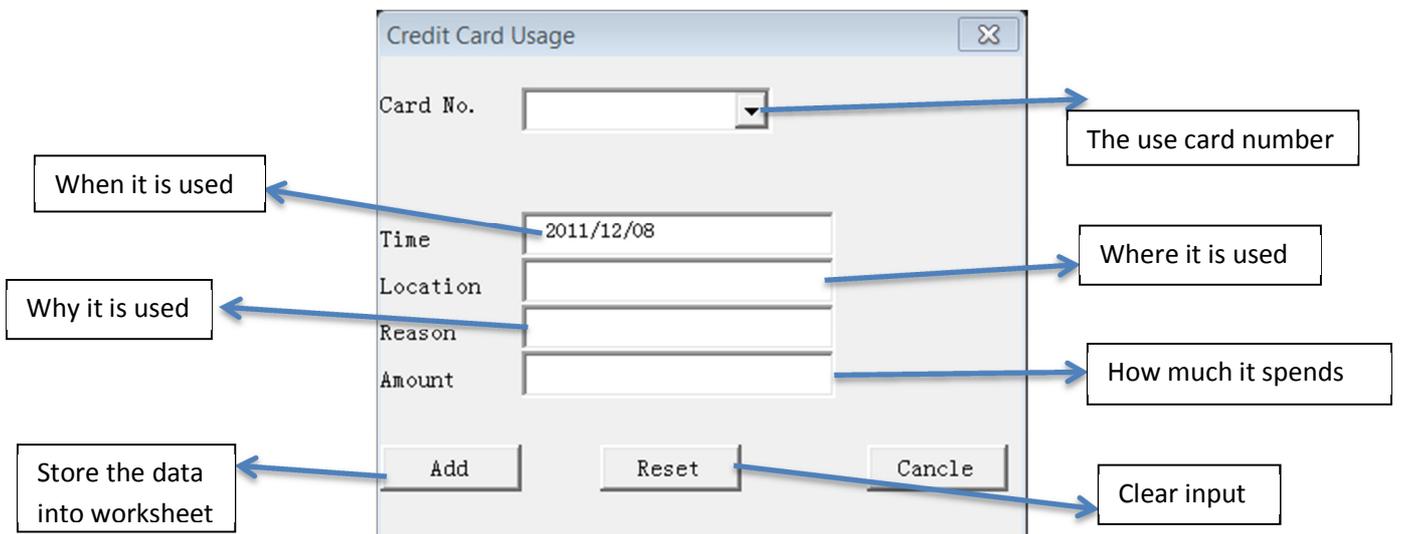
| | |
|----------------|--|
| dataFill(i) | stores data into worksheet |
| Add_Click() | Adds input data into selected worksheet and initializes the form by calling dataFill and Initialize sub procedures |
| Reset_Click() | clears current input data |
| Candle_Click() | unloads the form |



Credit Card Usage Form

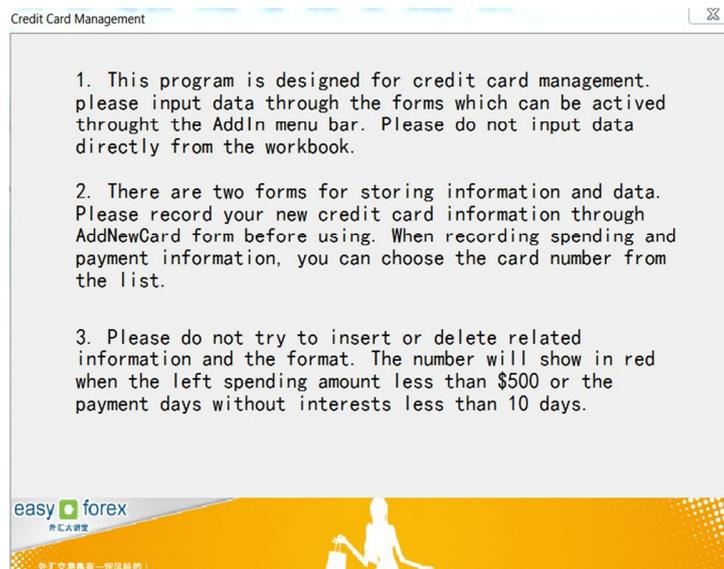
Basically, the credit card usage form has the same functions as add new credit card form. What it does is asking for the use information of a credit card, for example, the location, the date, and the amount. And then store the information in the worksheet.

| Sub Procedure or Event | Functions |
|------------------------|--|
| UserForm_Activate() | initializes the form by calling Initialize sub procedure when the form opens |
| CardNo_Change() | allows the user input the card no. and stores into the worksheet |
| Initialize() | clears content and add choices on combo box |
| InitializeData() | selects ranges to store data on "General info" worksheet |
| InputData() | selects ranges on "info. Statement" worksheet |
| FillData() | stores data into selected worksheet |
| Add_Click() | adds the data into worksheet and clear out the input |
| Reset_Click() | clear current input data |
| Cancle_Click() | unload the form |



Credit Card Management Form (Instruction)

This form just explains how to use this program and how to input data to the forms.



Learning and Conceptual Difficulties

I learned a lot from the process of establishing this project. This is the first time I deal with Excel VBA program. I learned how to create a web query, how to create a user form, how to parse html files, etc. from this course. But I know I need to keep working on it. The following are the tools I learned and used to create my project:

- ✓ Private and public sub procedures, functions, and variables
- ✓ Web query (I didn't use it in my project, but it helps)
- ✓ User forms (Labels, Combo boxes, List boxes, Command buttons)
- ✓ Command buttons (I can use it instead of Add in menu)
- ✓ Event procedures (Click, Change, Initialize)
- ✓ Loops (If...Then, For...Next)
- ✓ Add in menu bar

My biggest problem is the user form part. I didn't do well on my User Form assignment. That's why I choose to create a program using user form. I had a hard time when dealing with the combo box and list box. I spent a lot of time working on adding selections for the combo box.

I made some functions of the program work, but what I didn't make it successful was I didn't made the combo box works well and I didn't write code for the two worksheets to connect with each other (when user inputs spending amount into the info. Statement sheet, it should automatically go into the general information sheet, too). So I think I still need to work on it and add some more functions.