Problem Statement

The Problem is to create a clone of the popular TV show 'Who Wants to be a Millionaire?' in Visual Basic using the Visual Basic IDE to help with programming. Main problems within the program would be the extraction of the questions from an external force, and the random selection of questions followed by the subsequent implementation of the three lifelines. An added challenge might be getting more than one piece of music to play at a time. The limitations of this programming language is that it is event driven, which means that it struggles to multitask, a problem that presents itself when attempting to play music throughout several forms, or to play more than one sound at a time. I will also have to make an easy-to-use interface, which will be the keyboard and possibly the mouse. Money is not an issue, as I have VB6 as a free resource, and there are no Ethical issues to consider. The Program will be called "Who Wants to be a Millionaire?"

How?

This Program will be programmed in Visual Basic 6, without any add-ons. It will be drafted in Pseudocode before programming on VB6 begins, with resource gathering using screenshots of the console game compiled with music from the real show and questions from the real show.

Why?

I have been asked and sponsored by the Hasbro Foundation to create a game that almost anyone who can read English could play, and decided to write a 'Who Wants to be a Millionaire?' clone in a file small enough to be easily transported.

Who?

This game is suitable for anyone who can read English, although those with a vast amount of General Knowledge or who have watched a lot of WWTBAM as the questions have come from the TV show. As a result it isn't recommended for children under 10 due to the amount of knowledge needed to answer these questions. The Program was written by me, with help in troubleshooting from others.

When?

This game can be played anytime, as long as it is on a computer. The program should be written by the beginning of June, and released soon after. It was begun on the 19th of March

Where?

The Program can be run on any windows computer, but is not compatible with a Mac computer. It can, however be converted into a program suitable for one. The Program was written at The King's School.

Input	Process	Output
Keystroke (All Forms but Question)	Identification of Key Closure of Form Opening of another Form	Another Form
Keystroke (Question Form)	Identification of Key Check weather answer is correct	Answer is Correct/Incorrect
Lifeline	Identification of Lifeline Execution of Lifeline	Possible Correct answers
Wrong Answer	Opening of Another Form Closure of Question Form	Amount won
Integer (In Options)	Conversion into change in Audio levels	Louder, softer or no music
Questions & Answers (From External text file)	1st line – Question 1 2nd Line – AnswerA1 3rd Line – Answer B1 4th Line – Answer C1 5th Line – Answer D1 6th Line – Correct 1 7th Line – Question 2 Etc.	All Questions, Answers and Correct Answers
Question Number	Check weather Difficulty should be increased Check weather Music should change Change Question	Different Question Different Music Different Diffculty

Instruction Form
BEGIN

    CONTINUE PLAYING Music ("Is This Your Final Question?") on Loop

    GET Keypress

    IF Enter is pressed THEN

        LOAD Question Form

        Hide Me

      END IF

END

Menu Form
BEGIN

    PLAY Music ("Is This Your Final Question?") on Loop

    GET Keypress

      SELECT CASE Keypress

        CASE S: IF ShowInst = True THEN

            Hide Me

            Show Instructions Form

          ELSE

            Hide Me

            Show Questions Form

          END IF

        CASE O: Hide Me

          Show Options Form

        CASE Q: Unload Me

      END SELECT

    GET Click

      SELECT CASE Click

        CASE Start Game: IF ShowInst = True THEN

            Hide Me

            Show Instructions Form

          ELSE

            Hide Me

            Show Questions Form

          END IF

        CASE Options: Hide Me

          Show Options Form

        CASE Quit: Unload Me

      END SELECT

END

Question Form

```
BEGIN
            LOAD Questions into Variable Question(Question Number)
            LOAD Answer1 into Variable Answer 3(Question Number)
            LOAD Answer2 into Variable Answer2(Question Number)
            LOAD Answer3 into Variable Answer3(Question Number)
            LOAD Answer4 into Variable Answer4(Question Number)
            LOAD Correct into Byte Correct(Question Number) 'Questions loaded
    Questno = 1
    Fiftyfifty = False
    Fiftychange = False
    Pollaud = False
    Phone = False
    Quedonecount = 1
    Deletegraph = False
    Deletefriend = False
    AnsA = 1
    AnsB = 2
    AnsC = 3
    AnsD = 4
    SELECT CASE Questno
            CASE <=4:        PLAY Music ("Questions 1-500")
            CASE 5 To 9:     PLAY Music ("Questions 1000-32000")
            CASE 10 To 14:   PLAY Music ("Questions 64000 – 500000")
            CASE 15:         PLAY Music ("Questions 1000000")
    END SELECT
    IF Questno = Quedonecount THEN
            Generate Random number between 1-17 and store it into variable 'Random'
                    IF Questno  6 To 10 THEN
                            Random = Random +17
                    ELSEIF Questno 11 To 15 THEN
                            Random = Random + 34
                    END IF
            END IF
            Show Questions and Answer and store a value for Correct(Random) 'for variable
    'Random'
    END IF
    Questno = Questno + 1
    SELECT CASE Correct(Random)
            CASE 1: AnsA = 4
                    AnsD = 1
            CASE 2: AnsB = 4
                    AnsD = 2
            CASE 3: AnsC = 4
                    AnsD = 3 'changed the value of the correct answer to 4, swapping
    that spot with AnsD, unless D was correct, where nothing happens. Used later in lifelines.
    END SELECT
```
When 50/50 button is pushed
```
IF fiftyfifty = False THEN  'When 50/50 lifeline is pushed.
        Fiftyfifty = True
        Fiftychange = True
```

Show 'fiftyfifty used' picture
PLAY Music ("50/50")
Generate three random different numbers from one to four and store that value in 'random50' ,'random250' and 'Random350'
        IF Random50 = Correct(Random) THEN
         Random50 = Random350'
        ELSE IF Random250 = Correct (Random) THEN
                Random250 = Random 350
        END IF
ELSE MSGBOX "Don't Cheat!"
END IF
Lblans(random50).Caption = "" 'lblans(1-4) is the set of labels that the answers are stored in
Lblans(random250).Caption = ""
When Poll-a-Audience button is pushed
IF Pollaud = False THEN
        Pollaud = True
        Show Poll 'audi used' picture
        PLAY Music ("Poll the Audience")

        Define four variables in a control array ('audw(1-4)')
        Audcw(4)= 95
        Generate a random number between 1 and (Quedonecount * 4) and store it in variable RndPaa1
        Audw(1) = Audc - (RndPaa1) + 5
        Generate a random number between 1 and Audw(1) and store it in variable
RndPaa2
        Audw(2) = Audw(1) - (RndPaa2)
        Generate a random number between 1 and Audw(2) and store it in variable
RndPaa3
        Audw(3) = Audw(2) - (RndPaa3)
        Generate a random number between 1 and Audw(3) and store it in variable
RndPaa4
        Audw(4) = Audw(4) + [Audw(3) - (RndPaa4)] 'Introuduces the increased likelihood
that the audience might be wrong as the questions get harder
        Define four Rectangles or Pictures 'Bar(1-4)
        Bar(AnsA).Height = Audw(1)
        Bar(AnsB).Height = Audw(2)
        Bar(AnsC).Height = Audw(3)
        Bar(AnsD).Height = Audw(Correct(Random))
        Bar(4).Height = Audw(4) 'These bars are placed on a graph, under the letter they are
        named after
        IF Fiftychange = True THEN 'If the player uses both 50/50 and this lifeline
                Bar(random50).Height = 0
                Bar(random250).Height = 0
        END IF
        Wait 10 seconds
        Show Bar
        Show Graph
        Deletegraph = True
ELSE
        MSGBOX "Don't Cheat!"

END IF
When Phone-a-friend button is pushed
IF Phone = False THEN
      Show 'Phone used' picture
      Phone = True
      PLAY Music ("Phone a Friend")
      Generate Random number between (Quedonecount * 4) and 1 and store in Variable 'RndPhon'
      Phoney = 100 – RndPhon
      Phocount = 1
      Show Circle
      Show Photim 'This is a label
      FOR Timer 30 seconds step 1
            Circle (Phocount).colour = Red 'The timer consists of a number (in label "Photim") surrounded by 30 circles, one of which turn red every second
            Photim.Caption = (30 – Phocount)
            Phocount = Phocount + 1
      NEXT
      IF Phoney > ((Quedonecount * 4)+10) THEN 'Introduces the chance that the friend might be wrong and that that is more likely as the questions get harder
            Generate Random number between 1 and 3 and store in Variable 'RndFrie'
            Define String Fakeans
            Make label "Friendadvice"
            SELECT CASE RndFrie
                  CASE AnsA = RndFrie: Fakeans = A
                  CASE AnsB = RndFrie: Fakeans = B
                  CASE AnsC = RndFrie: Fakeans = C
                  CASE AnsD = RndFrie: Fakeans = D
            END SELECT
            IF fiftychange = True THEN 'If player uses 50/50 and this lifeline at once
                  IF Fakeans <> Random50 OR Fakeans <> Random250 THEN
                        RndFrie = 10 – 6 – Random50 – Random250
                        SELECT CASE RndFrie
                              CASE AnsA = RndFrie: Fakeans = A
                              CASE AnsB = RndFrie: Fakeans = B
                              CASE AnsC = RndFrie: Fakeans = C
                              CASE AnsD = RndFrie: Fakeans = D
                        END SELECT
                  END IF
            END IF
                Friendadvice.Caption = "Your friend is &Phoney& sure that &Fakeans& is the answer"
      ELSE
            Define String Realans
            SELECT CASE AnsD   'Because AnsD was swapped with the correct answer earlier on, or is the answer
                CASE 1: Realans = A
                CASE 2: Realans = B
                 CASE 3: Realans = C
                 CASE 4: Realans = D
            END SELECT

```
                    Friendadvice.Caption = "Your friend is &Phoney& sure that &Realans& is the
                    answer"
            END IF
Show Friendadvice
Deletefriend = True
ELSE
            MSGBOX "Don't Cheat!"
END IF

IF Walk Away button is pressed THEN
            Hide Me
            Reset all variables
            Show Win Something Form
 END IF
GET Keypress
        SELECT CASE Keypress   'where the computer gives the chosen answer a value
                CASE A: Guess = 1
                        IF lblans(1) = "" THEN
                                MSGBOX "Please press a valid option"
                        END IF
                        Show 'Chosen Answer' picture
                CASE B: Guess = 2
                        IF lblans(1) = "" THEN
                                MSGBOX "Please press a valid option"
                        END IF
                        Show 'Chosen Answer 'picture
                CASE C: Guess = 3
                        IF lblans(1) = "" THEN
                                MSGBOX "Please press a valid option"
                        END IF
                        Show 'Chosen Answer' picture
                CASE D: Guess = 4
                        IF lblans(1) = "" THEN
                                MSGBOX "Please press a valid option"
                        END IF
                        Show 'Chosen Answer' picture
                CASE ELSE
                        MSGBOX "Please press a valid option"
        END SELECT
IF Deletegraph = True THEN      'Gets rid of the Phone a friend and Poll the audience
graphs/advice
        Delete Graph
        Deletegraph = False
END IF
IF Deletefriend = True THEN
        Delete friendadvice
        Deletefriend = False
END IF
IF fiftychange = True THEN
        Fiftychange = False
END IF
```

Show 'Correct answer' picture 'this would simply cover the Chosen answer picture if the player picked the right answer

IF Guess = Correct(Random) THEN

    PLAY Music ("Correct") until finished

    Quedonecount = Quedonecount + 1 'This means the next question can be Shown

    Hide 'Chosen answer' picture

    Hide 'Correct answer' picture

ELSEIF Quedonecount > 1 THEN 'If more than one question is answered

    PLAY Music ("Wrong") until finished

    Hide Me

    Reset all variables

    Show Win Something Form

ELSE 'If the guy is an idiot and didn't get one correct

    PLAY Music ("Wrong") until finished

    Show Win Nothing Form

    Hide Me

    Reset all variables

END IF

ENDIF

IF Quedonecount = 16 'If we have a millionare

    Show Win Something Form

    Reset All Variables

    PLAY Music ("Millionare Theme") until finished

END IF

END

Win Nothing Form

BEGIN

    PLAY Music ("Questions 1-1000") On Loop

    IF Enter is pressed THEN

      LOAD Menu Form

      Unload Me

    END IF

END

Options Form

BEGIN

    CONTINUE PLAY Music ("Is That Your Final Answer?") on Loop

    INPUT Integer into Textbox ("Volume (0-100)")

      When Button ("Set Volume") is Clicked Volume = Textbox.Text

    SELECT CASE Volume

      1 T0 100:   Change volume of all songs

      0:    Mute Music

      CASE ELSE: MSGBOX "You must enter a value between 0 and 100"

    END SELECT

    IF Checkbox ("Skip Instructions") is Checked THEN

      SkipInst = False

    END IF

END

Splash Screen

BEGIN

```
        GET KEYPRESS
                IF GET Key THEN
                        Unload Me
                        Show Menu Form
                END IF
        GET Click
                IF GET Click THEN
                        Unload Me
                        Show Menu Form
                END IF
        PLAY Music ("Millionare Theme")
        When Music ends
                Unload Me
                Show Menu Form
END
```

Win Something

```
BEGIN
        PLAY MUSIC ("Questions 1-1000") on Loop
        Define 15 Variables like so:
        Prize(2) = 100
        Prize(3)= 200
        Prize(4)= 300
        Prize(5)= 500
        Prize(6)= 1,000
        Prize(7)= 2,000
        Etc.
        Prize(16)= 1,000,000

        Labelwinwhat.caption = "$&Prize(Quedonecount)&"

        GET KEY
        IF Enter is pressed THEN
                Hide ME
                Show Menu Form
        END IF
END
```