VBugs Chapter 2 Worksheet

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| **Name:** |
| **Year Level: SOLUTIONS** |

**Part 1**

Question 1: What is happening on your SwinGame screen? Describe the output below:

Nothing is happening on screen except for a 600x800 black background is being displayed.

Exercise 1: *Loading images into your program*

1. Write the complete code for LoadImages() sub into the area below.

|  |
| --- |
| Answer:  NewImage("back", "back.png")  NewImage("photo", "photo.png")  …  Private Sub LoadImages()      End Sub  … |

1. What does the first parameter (“back”) do in NewImage()? (write your answer on the worksheet)

*This parameter represents the name of image in our program, so you can refer to the particular image loaded in your program by calling its name.*

**Part 2**

Question1:*What do you think DrawBitmap() sub does? Write your answer in the area below.*

*DrawBitmap() function draws the picture at a particular position on the screen.*

Exercise 1: *Drawing other images on the screen*

1. Tell the computer to draw photo.png on the screen. The code for this needs to be inside the Game Loop. Write the code that you entered to achieve this in the area below:

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| --- |
| Answer:  Graphics.DrawBitmap(GameImage("photo"), 100, 30)  …  SwinGame.Graphics.ClearScreen()    'Refreshes the Screen and Processes Input Events  … |

**Part 3**

*Exercise 1:*

*Write the complete code for the LoadFonts() sub in the area below:*

|  |
| --- |
| Answer:  NewFont("BeanTown", "BEANTOWN.ttf", 60)  …      End Sub  … |

Question 1: What do you think 60 in the above code does? Change its value and test it to see what find out.

*The 60 is the font size.*

Exercise 1: *Drawing the text by using loaded true type font*

1. In GameLogic.vb you will remember earlier we deleted the following line of code:

|  |
| --- |
| …  Text.DrawText("Hello World!", Color.Aqua, GameFont("ArialLarge"), 50, 50)  … |

We want to use something similar to test our new font. Change the above code so that we use the new font and it says a message of your choosing a different position.

|  |
| --- |
| Answer:  Text.DrawText("I'm a cool bug!", Color.Black, GameFont("BeanTown"), 450, 10)  …  SwinGame.Graphics.ClearScreen()      'Refreshes the Screen and Processes Input Events  … |

**Part 4**

Exercise 1: *Colors with RGB and RGBA*

1. What is the color and how much could you see it with the following ARGB values:

(255, 255, 0, 0). Write the color and mark the transparency in the area below:

|  |
| --- |
| Color:  Red  Transparency:  Transparency.png |

1. What is the color and how much could you see with the following ARGB values:

(30, 0, 255, 0). Write the color and mark the transparency in the area below:

|  |
| --- |
| Color:  Green  Transparency:Transparency.png |

1. What is the color and how much could you see with the following values of ARGB:

(127, 0, 0, 255). Write the color and mark the transparency in the area below:

|  |
| --- |
| Color:  Blue  Transparency:Transparency.png |

1. What is the color and how much could you see with the following values of ARGB:

(255, 255, 255, 0). Write the color and mark the transparency in the area below:

|  |
| --- |
| Color:  Yellow  Transparency:Transparency.png |

1. What is the color and how much could you see with the following values of ARGB:

(127, 0, 0, 255). Write the color and mark the transparency in the area below:

|  |
| --- |
| Color:  blue/transparent  Transparency:Transparency.png |

Exercise 2: *Drawing rectangle with the customized color*

1. Draw one rectangle of each of the colors from the previous exercise, put the rectangles at different points on the screen.
2. In GameLogic.vb you will remember earlier we deleted the following line of code:

|  |
| --- |
| …  Graphics.FillRectangle(Color.Red, 20, 150, 500, 50)  … |

Modify this code to use ARGB, instead of Color.Red use Color.FromArgb(alphaVal, redVal, greenVal, blueVal).

|  |
| --- |
| Graphics.FillRectangle(Color.FromArgb(255, 255, 0, 0), 700, 500, 100, 100)  Graphics.FillRectangle(Color.FromArgb(30, 0, 255, 0), 600, 500, 100, 150)  Graphics.FillRectangle(Color.FromArgb(0, 0, 0, 255), 500, 500, 100, 200) |