오빠두

오빠두엑셀 기초강좌 E-BOOK

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한국어

#엑셀 VBA3-3

〉〉 셀 범위 이동

확장 선택

그림그리기

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1. Range.Offset 속성 이해하기

VBA 에서의 Range(범위)개체 Offset 속성은 또 다른 Range(범위) 개체를 출력하는 속성입니다. 선택된 Range 를 기준으로 입력한 숫자만큼 아래로 몇 칸 / 오른쪽으로 몇 칸을 이동한 셀을 결과값으로 반환합니다.

Range.Offset(상하이동, 좌우이동)

```
Sub Offset_Test()

Dim Rng As Range

'// A1 셀을 Rng 로 할당합니다.
Set Rng = Range("A1")

'// A1 셀에서 밑으로 1 칸, 우측으로 2 칸을 이동한 셀(C2)을 선택합니다.
Rng.Offset(1, 2).Select

End Sub
```

[링크] 마이크로소프트 Range.Offset 속성 설명 바로가기
https://docs.microsoft.com/en-us/office/vba/api/excel.range.offset

2. Range.Resize 함수 이해하기

VBA Range(범위)개체의 Resize 속성은 워크시트에서 사용하는 OFFSET 함수의 선택인수 (3 번째, 4 번째 인수)와 같은 동작을 합니다. 기준셀에서 입력한 숫자만큼 위아래로 몇 칸, 좌우로 몇 칸 넓힌 범위를 결과값으로 반환합니다. 각 인수는 반드시 1 보다 크거나 같아야 합니다. (0 이나 음수를 입력하면 오류메세지를 출력합니다.)

Range.Resize(상하확장, 좌우확장)

```
Sub Resize_Test()

Dim Rng As Range

'// A1 셀을 Rng 로 할당합니다.
Set Rng = Range("A1")

'// A1 셀을 선택합니다.
Rng.Select

'// A1 셀에서 아래로 5 칸, 우측으로 5 칸 넓힌 범위를 선택합니다.
'// (A1:E5)
Rng.Resize(5, 5).Select

End Sub
```

[링크] 마이크로소프트 Range.Offset 속성 설명 바로가기
https://docs.microsoft.com/en-us/office/vba/api/excel.range.resize

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3. Range.Interior.Color 속성 이해하기

Range(범위) 개체의 Interior.Color 는 선택된 범위의 배경색을 칠하는 속성입니다. 배경색을 지정하기 위해 VB 기준색상 (vbRed, vbBlue,.. 등) 또는 RGB 를 지정하여 이용할 수 있다고 이전강의에서 설명드렸습니다. 자세한 내용은 이전 강의를 참고하세요.

Range.Interior.Color = ColorIndex

```
Sub BG_Red()

Dim WS As Worksheet
Dim Rng As Range

'// WS 와 Rng 를 각각 Sheet1 과 Sheet1 에 사용자지정범위로 등록된 "하트"로 할당합니다.
Set WS = ThisWorkbook.Worksheets("Sheet1")
Set Rng = WS.Range("하트")

'// "하트"의 배경색을 RGB(0,255,0)으로 칠합니다.
Rng.Interior.Color = RGB(0, 255, 0)

End Sub
```

[링크] 마이크로소프트 Range.Interior.Color 속성 설명 바로가기

https://docs.microsoft.com/en-us/office/vba/api/excel.interior.color

4. 기준셀에서 이동/확장 된 범위의 배경색을 입히는 명령문 작성

마리오그림을 그리기 위해서는 5 개의 색상(빨강색, 검정색, 파랑색, 갈색, 살색)이 필요합니다. 각각의 기준셀로부터 이동하고/확장된 범위를 원하는 색상으로 편하게 칠하기 위하여 아래와 같이 5 개의 보조명령문(Sub-Procedure)를 작성합니다.

```
'################ 빨강색 ###################
Sub FillRed(Rng As Range, row As Long, col As Long, Optional ExtRow As Long =
1, Optional ExtCol As Long = 1)

On Error Resume Next

Rng.Offset(row, col).Resize(ExtRow, ExtCol).Interior.Color = vbRed

End Sub

'################ 검정색 ###################
Sub FillBlack(Rng As Range, row As Long, col As Long, Optional ExtRow As Long =
1, Optional ExtCol As Long = 1)

On Error Resume Next

Rng.Offset(row, col).Resize(ExtRow, ExtCol).Interior.Color = vbBlack

End Sub
```


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```
'################ 살색 ###################
Sub FillSkin(Rng As Range, row As Long, col As Long, Optional ExtRow As Long =
1, Optional ExtCol As Long = 1)

On Error Resume Next

Rng.Offset(row, col).Resize(ExtRow, ExtCol).Interior.Color = RGB(255, 230, 153)

End Sub

'################ 갈색 ###################
Sub FillBrown(Rng As Range, row As Long, col As Long, Optional ExtRow As Long =
1, Optional ExtCol As Long = 1)

On Error Resume Next

Rng.Offset(row, col).Resize(ExtRow, ExtCol).Interior.Color = RGB(198, 89, 17)

End Sub

'################ 파랑색 ###################
Sub FillBlue(Rng As Range, row As Long, col As Long, Optional ExtRow As Long =
1, Optional ExtCol As Long = 1)

On Error Resume Next

Rng.Offset(row, col).Resize(ExtRow, ExtCol).Interior.Color = vbBlue

End Sub
```

5. 기준셀에서 마리오 그림을 그리는 명령문 작성

각각의 색깔로 배경색을 칠하는 5 개의 보조명령문을 작성하였으면, 지정한 기준셀에서 마리오그림을 그리는 아래의 4 개의 명령문을 작성합니다. (Mario_RW 는 RightWalking, Mario_RJ 는 RightJump 를 의미합니다.)

```
'#################################
'오른쪽 걷는 마리오
'#################################
Sub Mario_RW(Rng As Range)

Dim Mario As Range

Rng.Activate

FillRed Rng, 0, 4, , 4
FillRed Rng, 1, 3, , 8
FillRed Rng, 9, 0
FillRed Rng, 8, 1, 2
FillRed Rng, 7, 2, 4
FillRed Rng, 7, 3, 2
FillRed Rng, 7, 5, 2
FillRed Rng, 7, 6, 2
FillRed Rng, 7, 8, 2
FillRed Rng, 8, 9, 3
```


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```
FillRed Rng, 8, 10, 2
FillRed Rng, 9, 11
FillRed Rng, 15, 0
FillRed Rng, 14, 1, 2
FillRed Rng, 14, 2, 2
FillRed Rng, 14, 3, 2
FillRed Rng, 14, 8, 2
FillRed Rng, 14, 9, 2
FillRed Rng, 14, 10, 2
FillRed Rng, 14, 11, 2

FillBlack Rng, 2, 7, 2

FillBrown Rng, 2, 2, , 3
FillBrown Rng, 3, 1, 3
FillBrown Rng, 3, 3, 2
FillBrown Rng, 4, 4
FillBrown Rng, 5, 7, , 3
FillBrown Rng, 4, 8
FillBrown Rng, 5, 2

FillSkin Rng, 3, 2, 2
FillSkin Rng, 5, 3, 2
FillSkin Rng, 3, 4
FillSkin Rng, 5, 4, 2
FillSkin Rng, 2, 5, 5
FillSkin Rng, 2, 6, 5
FillSkin Rng, 4, 7
FillSkin Rng, 6, 7
FillSkin Rng, 2, 8, 2
FillSkin Rng, 6, 8
FillSkin Rng, 3, 9, 2
FillSkin Rng, 4, 10
FillSkin Rng, 10, 0, 3
FillSkin Rng, 10, 1, 3
FillSkin Rng, 11, 2
FillSkin Rng, 11, 9
FillSkin Rng, 10, 10, 3
FillSkin Rng, 10, 11, 3

FillBlue Rng, 7, 4, 7
FillBlue Rng, 9, 3, 5
FillBlue Rng, 12, 2, 2
FillBlue Rng, 9, 5, 4
FillBlue Rng, 9, 6, 4
FillBlue Rng, 7, 7, 7
FillBlue Rng, 9, 8, 5
FillBlue Rng, 12, 9, 2

End Sub

'###################################
'오른쪽 점프하는 마리오
'###################################
Sub Mario_RJ(Rng As Range)

Dim Mario As Range

Rng.Activate
```


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```
FillRed Rng, 0, 6, , 4
FillRed Rng, 1, 5, , 8
FillRed Rng, 2, 12, , 4
FillRed Rng, 3, 12, , 4
FillRed Rng, 4, 13, , 3
FillRed Rng, 5, 12, , 3
FillRed Rng, 6, 12, , 2
FillRed Rng, 7, 11, , 2
FillRed Rng, 7, 7, , 3
FillRed Rng, 8, 8, , 3
FillRed Rng, 7, 1, , 5
FillRed Rng, 8, 0, , 6
FillRed Rng, 9, 1, , 6
FillRed Rng, 10, 5
FillRed Rng, 11, 2, 5
FillRed Rng, 12, 1, 4
FillRed Rng, 13, 0, 3
FillRed Rng, 12, 3
FillRed Rng, 10, 13, 3
FillRed Rng, 8, 14, 5
FillRed Rng, 8, 15, 5
FillRed Rng, 8, 6

FillSkin Rng, 3, 4, 2
FillSkin Rng, 5, 5, 2
FillSkin Rng, 5, 6, 2
FillSkin Rng, 3, 6
FillSkin Rng, 2, 7, 5
FillSkin Rng, 2, 8, 5
FillSkin Rng, 4, 9
FillSkin Rng, 6, 9, , 3
FillSkin Rng, 2, 10, 2
FillSkin Rng, 3, 11, 2
FillSkin Rng, 4, 12
FillSkin Rng, 0, 12, , 4
FillSkin Rng, 1, 13, , 3
FillSkin Rng, 9, 0, 3
FillSkin Rng, 10, 1, 2
FillSkin Rng, 10, 2

FillBrown Rng, 3, 3, 3
FillBrown Rng, 2, 4, , 3
FillBrown Rng, 3, 5, 2
FillBrown Rng, 4, 6
FillBrown Rng, 5, 4
FillBrown Rng, 2, 11
FillBrown Rng, 4, 10
FillBrown Rng, 5, 9, , 3

FillBlue Rng, 7, 6
FillBlue Rng, 10, 3, 2
FillBlue Rng, 13, 3, 3
FillBlue Rng, 10, 4, 6
FillBlue Rng, 11, 5, 5
FillBlue Rng, 10, 6, 5
FillBlue Rng, 8, 7, 7
FillBlue Rng, 9, 8, 6
FillBlue Rng, 9, 9, 5
FillBlue Rng, 7, 10
FillBlue Rng, 9, 10, 5
FillBlue Rng, 8, 11, 5
```


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```
FillBlue Rng, 8, 12, 5

FillBlack Rng, 2, 9, 2

End Sub

'###################################
'왼쪽 걷는 마리오
'###################################
Sub Mario_LW(Rng As Range)

Rng.Activate

FillRed Rng, 0, 4, , 4
FillRed Rng, 1, 1, , 8
FillRed Rng, 9, 0
FillRed Rng, 8, 1, 2
FillRed Rng, 8, 2, 3
FillRed Rng, 7, 3, 2
FillRed Rng, 7, 5, 2
FillRed Rng, 7, 6, 2
FillRed Rng, 7, 8, 2
FillRed Rng, 7, 9, 4
FillRed Rng, 8, 10, 2
FillRed Rng, 9, 11
FillRed Rng, 14, 0, 2
FillRed Rng, 14, 1, 2
FillRed Rng, 14, 2, 2
FillRed Rng, 14, 3, 2
FillRed Rng, 14, 8, 2
FillRed Rng, 14, 9, 2
FillRed Rng, 14, 10, 2
FillRed Rng, 15, 11

FillSkin Rng, 4, 1
FillSkin Rng, 3, 2, 2
FillSkin Rng, 2, 3, 2
FillSkin Rng, 4, 4, , 3
FillSkin Rng, 3, 5, , 3
FillSkin Rng, 2, 5, , 2
FillSkin Rng, 5, 5, , 4
FillSkin Rng, 6, 3, , 6
FillSkin Rng, 3, 9, 2
FillSkin Rng, 10, 0, 3
FillSkin Rng, 10, 1, 3
FillSkin Rng, 11, 2
FillSkin Rng, 11, 9
FillSkin Rng, 10, 10, 3
FillSkin Rng, 10, 11, 3

FillBlue Rng, 12, 2, 2
FillBlue Rng, 9, 3, 5
FillBlue Rng, 7, 4, 7
FillBlue Rng, 9, 5, 4
FillBlue Rng, 9, 6, 4
FillBlue Rng, 7, 7, 7
FillBlue Rng, 9, 8, 5
FillBlue Rng, 12, 9

FillBrown Rng, 5, 2, , 3
```


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```
FillBrown Rng, 4, 3
FillBrown Rng, 2, 7, , 3
FillBrown Rng, 3, 8
FillBrown Rng, 4, 7, , 2
FillBrown Rng, 5, 9
FillBrown Rng, 3, 10, 3

FillBlack Rng, 2, 4, 2

End Sub

'###################################
'왼쪽 점프하는 마리오
'###################################
Sub Mario_LJ(Rng As Range)

Rng.Activate

FillRed Rng, 0, 6, , 4
FillRed Rng, 1, 3, , 8
FillRed Rng, 2, 0, , 4
FillRed Rng, 3, 0, , 4
FillRed Rng, 4, 0, , 3
FillRed Rng, 5, 1, , 3
FillRed Rng, 6, 2, , 2
FillRed Rng, 7, 3, , 2
FillRed Rng, 8, 0, 5
FillRed Rng, 8, 1, 5
FillRed Rng, 10, 2, 3
FillRed Rng, 8, 5, , 3
FillRed Rng, 7, 6, , 3
FillRed Rng, 7, 10, , 5
FillRed Rng, 8, 9, , 7
FillRed Rng, 9, 9, , 6
FillRed Rng, 10, 10
FillRed Rng, 12, 12
FillRed Rng, 11, 13, 5
FillRed Rng, 12, 14, 4
FillRed Rng, 13, 15, 3

FillBlue Rng, 8, 3, 5
FillBlue Rng, 8, 4, 5
FillBlue Rng, 7, 5
FillBlue Rng, 9, 5, 5
FillBlue Rng, 9, 6, 5
FillBlue Rng, 9, 7, 6
FillBlue Rng, 8, 8, 7
FillBlue Rng, 7, 9, 1
FillBlue Rng, 10, 9, 6
FillBlue Rng, 11, 10, 5
FillBlue Rng, 10, 11, 6
FillBlue Rng, 10, 12, 2
FillBlue Rng, 13, 12, 3

FillSkin Rng, 0, 0, , 4
FillSkin Rng, 1, 0, , 3
FillSkin Rng, 4, 3, , 2
FillSkin Rng, 3, 4, , 2
FillSkin Rng, 2, 5
FillSkin Rng, 2, 7, , 2
```


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```
FillSkin Rng, 3, 7, , 3
FillSkin Rng, 4, 6, , 3
FillSkin Rng, 5, 7, , 4
FillSkin Rng, 6, 4, , 6
FillSkin Rng, 3, 11, 2
FillSkin Rng, 9, 15, 3
FillSkin Rng, 10, 14, 2
FillSkin Rng, 10, 13

FillBrown Rng, 2, 4
FillBrown Rng, 5, 4, , 3
FillBrown Rng, 4, 5
FillBrown Rng, 2, 9, , 3
FillBrown Rng, 3, 10
FillBrown Rng, 4, 9, , 2
FillBrown Rng, 3, 12, 3
FillBrown Rng, 5, 11

FillBlack Rng, 2, 6, 2

End Sub
```

6. 각각의 마리오 그림을 출력하는 명령문 작성

4 개의 마리오 그림을 기준셀에서 이동해서 시트위에 출력하는 명령문을 작성합니다. 명령문 작성 후 실행하면 메시지박스가 출력되면서 4 개의 마리오그림이 시트위에 각각 그려집니다.

```
'###################################
'마리오 그림 출력하기 테스트
'###################################
Sub Mario_Print_Test()

Dim Rng As Range

Set Rng = ThisWorkbook.Worksheets("Sheet1").Range("A1")

MsgBox "마리오그림 1 을 출력합니다."
Mario_RW Rng

MsgBox "마리오그림 2 을 출력합니다."
Mario_LW Rng.Offset(0, 20)

MsgBox "마리오그림 3 을 출력합니다."
Mario_RJ Rng.Offset(0, 40)

MsgBox "마리오그림 4 을 출력합니다."
Mario_LJ Rng.Offset(0, 60)

End Sub
```


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