# How are Images Stored









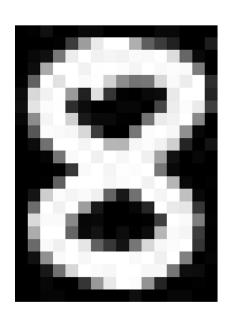






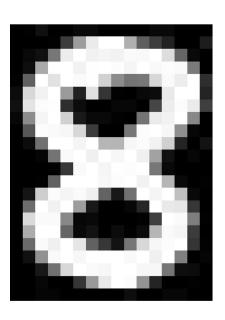


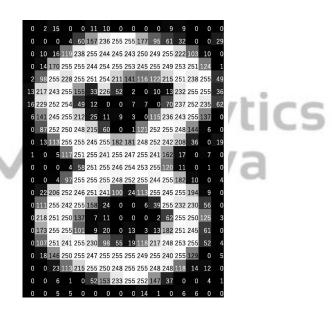






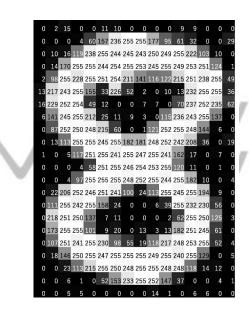


















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4 60 157 236 255 255 177 95 61 32
      16 119 238 255 244 245 243 250 249 255 222 103 10 0
 0 14 170 255 255 244 254 255 253 245 255 249 253 251 124 1
 2 98 255 228 255 251 254 211 141 116 122 215 251 238 255 49
13 217 243 255 155 33 226 52 2 0 10 13 232 255 255 36
16 229 252 254 49 12 0 0 7 7 0 70 237 252 235 62
 6 141 245 255 212 25 11 9 3 0 115 236 243 255 137 0
0 87 252 250 248 215 60 0 1 121 252 255 248 144 6
0 13 113 255 255 245 255 182 181 248 252 242 208 36
                                                  0 19
       5 117 251 255 241 255 247 255 241 162 17 0
          4 58 251 255 246 254 253 255 120 11
       4 97 255 255 255 248 252 255 244 255 182 10
0 22 206 252 246 251 241 100 24 113 255 245 255 194
 0 111 255 242 255 158 24 0 0 6 39 255 232 230 56
 0.218.251.250.137 7 11 0 0 0 2 62.255.250.125
 0 173 255 255 101 9 20 0 13 3 13 182 251 245 61
 0 107 251 241 255 230 98 55 19 118 217 248 253 255 52 4
0 18 146 250 255 247 255 255 255 249 255 240 255 129
      23 113 215 255 250 248 255 255 248 248 118 14 12 0
               0 52 153 233 255 252 147 37
                     0 0 0 14 1 0
```

Images stored as matrix of pixel values

Analytics Vidhya



```
4 60 157 236 255 255 177 95 61 32
      16 119 238 255 244 245 243 250 249 255 222 103 10 0
 0 14 170 255 255 244 254 255 253 245 255 249 253 251 124 1
 2 98 255 228 255 251 254 211 141 116 122 215 251 238 255 49
13 217 243 255 155 33 226 52 2 0 10 13 232 255 255 36
16 229 252 254 49 12 0 0 7 7 0 70 237 252 235 62
 6 141 245 255 212 25 11 9 3 0 115 236 243 255 137 0
0 87 252 250 248 215 60 0 1 121 252 255 248 144
0 13 113 255 255 245 255 182 181 248 252 242 208 36
        5 117 251 255 241 255 247 255 241 162 17
           4 58 251 255 246 254 253 255 120 11
        4 97 255 255 255 248 252 255 244 255 182 10
0 22 206 252 246 251 241 100 24 113 255 245 255 194
 0 111 255 242 255 158 24 0 0 6 39 255 232 230 56
 0 218 251 250 137 7 11 0 0
                                0 2 62 255 250 125
 0 173 255 255 101 9 20 0 13 3 13 182 251 245 61
 0 107 251 241 255 230 98 55 19 118 217 248 253 255 52 4
0 18 146 250 255 247 255 255 255 249 255 240 255 129
      23 113 215 255 250 248 255 255 248 248 118 14 12 0
               0 52 153 233 255 252 147 37
```

- Images stored as matrix of pixel values
- Represents the intensity at a particular location



```
4 60 157 236 255 255 177 95 61 32
       16 119 238 255 244 245 243 250 249 255 222 103 10
 0 14 170 255 255 244 254 255 253 245 255 249 253 251 124 1
 2 98 255 228 255 251 254 211 141 116 122 215 251 238 255 49
13 217 243 255 155 33 226 52 2 0 10 13 232 255 255 36
16 229 252 254 49 12 0 0 7 7 0 70 237 252 235 62
 6 141 245 255 212 25 11 9 3 0 115 236 243 255 137 0
0 87 252 250 248 215 60 0 1 121 252 255 248 144
0 13 113 255 255 245 255 182 181 248 252 242 208 36
        5 117 251 255 241 255 247 255 241 162 17
           4 58 251 255 246 254 253 255 120 11
        4 97 255 255 255 248 252 255 244 255 182 10
0 22 206 252 246 251 241 100 24 113 255 245 255 194
 0 111 255 242 255 158 24 0 0 6 39 255 232 230 56
 0 218 251 250 137 7 11 0
                                    2 62 255 250 125
 0 173 255 255 101 9 20 0 13 3 13 182 251 245 61
 0 107 251 241 255 230 98 55 19 118 217 248 253 255 52 4
 0 18 146 250 255 247 255 255 255 249 255 240 255 129
       23 113 215 255 250 248 255 255 248 248 118 14
               0 52 153 233 255 252 147 37
```

- Images stored as matrix of pixel values
- Represents the intensity at a particular location
- 0 represents black and 255 represents white



```
4 60 157 236 255 255 177 95 61 32
       16 119 238 255 244 245 243 250 249 255 222 103 10
 0 14 170 255 255 244 254 255 253 245 255 249 253 251 124 1
 2 98 255 228 255 251 254 211 141 116 122 215 251 238 255 49
13 217 243 255 155 33 226 52 2 0 10 13 232 255 255 36
16 229 252 254 49 12 0 0 7 7 0 70 237 252 235 62
 6 141 245 255 212 25 11 9 3 0 115 236 243 255 137 0
0 87 252 250 248 215 60 0 1 121 252 255 248 144
 0 13 113 255 255 245 255 182 181 248 252 242 208 36
        5 117 251 255 241 255 247 255 241 162 17
           4 58 251 255 246 254 253 255 120 11
        4 97 255 255 255 248 252 255 244 255 182 10
      206 252 246 251 241 100 24 113 255 245 255 194
 0 111 255 242 255 158 24 0
 0 218 251 250 137 7 11 0
 0 173 255 255 101 9 20 0 13 3 13 182 251 245 61
 0 107 251 241 255 230 98 55 19 118 217 248 253 255 52 4
 0 18 146 250 255 247 255 255 255 249 255 240 255 129
       23 113 215 255 250 248 255 255 248 248 118 14
               0 52 153 233 255 252 147 37
```

- Images stored as matrix of pixel values
- Represents the intensity at a particular location
- 0 represents black and 255 represents white
- Matrix of number is known as channel



## Color Images

Colour images are composed of multiple colors



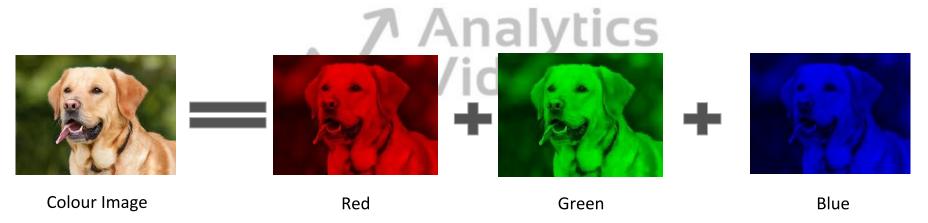
Colour Image





## Color Images

- Colour images are composed of multiple colors
- RGB are composed of Red, Green and Blue parts







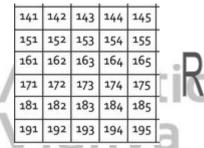
Colour Image







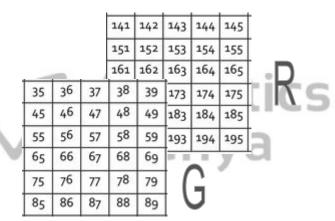
Colour Image







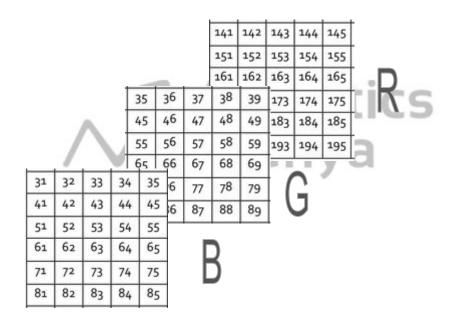
Colour Image







Colour Image



 $N \times M \times 3$ 



# Thank You! Vidhya

