

```
from google.colab import drive
drive.mount('/content/drive')
```

Mounted at /content/drive

```
!unzip '/content/drive/MyDrive/Drowning Classification.v1i.folder.zip'
```

```
extracting: train/Drowning/124_png.rf.bef4988417f013a577f3aa12ea5aa298.jpg
extracting: train/Drowning/124_png.rf.e18b54f9d8270fbc1c9e0fe762abad35.jpg
extracting: train/Drowning/125_png.rf.18819ffe143a36b7efd0f67810354ffe.jpg
extracting: train/Drowning/125_png.rf.56fa97a64f2ff32b2293a72b79394a1a.jpg
extracting: train/Drowning/125_png.rf.abac4bfb5f06e4a7a94d8381c9163c61.jpg
extracting: train/Drowning/126_png.rf.32e08a07d8fc55543e34eff1ed249413.jpg
extracting: train/Drowning/126_png.rf.a2f4d8a1ca69e5719d4d2e17775d240e.jpg
extracting: train/Drowning/126_png.rf.e581cd88c1843cb4fb4782bce6dae971.jpg
extracting: train/Drowning/127_png.rf.63e442c4f4d9976ea5624c487ce38cc1.jpg
extracting: train/Drowning/127_png.rf.c0d473de27d427e7f030b4fa2210dfca.jpg
extracting: train/Drowning/127_png.rf.ece51c0ba7eb629a2365a8e87a0a5bf8.jpg
extracting: train/Drowning/129_png.rf.3d6bb8e23a41ade5eed747c507210c31.jpg
extracting: train/Drowning/129_png.rf.9e1d6e67b08551761c88a3226571f5ed.jpg
extracting: train/Drowning/129_png.rf.fbbb9c82a540251b76fb6674f6ebcaa4.jpg
extracting: train/Drowning/130_png.rf.1715f89bd580523ea966cdac84415912.jpg
extracting: train/Drowning/130_png.rf.59101dc44223dad51ac28cecd83e9029.jpg
extracting: train/Drowning/130_png.rf.fe66401f39d91bc88a8a635e42d7a8ce.jpg
extracting: train/Drowning/131_png.rf.4cd420c94b0411d5697c7fa97fde117b.jpg
extracting: train/Drowning/131_png.rf.bea81d60746686693ade4546730cdfc3.jpg
extracting: train/Drowning/131_png.rf.fac1f48af5c1df155abbbcff8c652698.jpg
extracting: train/Drowning/133_png.rf.8f07a57dfdd6ee5df7105dfa8825c001.jpg
extracting: train/Drowning/133_png.rf.a842d646247e3fadd28b7ca696ca88af.jpg
extracting: train/Drowning/133_png.rf.f235a7197fe7d1b4f697b884941bb81d.jpg
extracting: train/Drowning/135_png.rf.2fffae653c5faea7397226686d4b1632.jpg
extracting: train/Drowning/135_png.rf.a18747c67826297505b1b6b9e57e318d.jpg
extracting: train/Drowning/135_png.rf.b444a6dafdb2c9184398a1cbfb701025.jpg
extracting: train/Drowning/136_png.rf.7499b6dd0e77fccb8da9873f6b830e72.jpg
extracting: train/Drowning/136_png.rf.b7f20f4f7e140c627ac0311ad14abb7c.jpg
extracting: train/Drowning/136_png.rf.d79807d5a71bc029aa833f9a5e77a003.jpg
extracting: train/Drowning/137_png.rf.1853b5e9175a603fdf316827d3bcc5c5.jpg
extracting: train/Drowning/137_png.rf.46cd512dafaf48800f7933f4c7121ed6.jpg
extracting: train/Drowning/137_png.rf.6e5904acaa327024cd2aac903d33a6a5.jpg
extracting: train/Drowning/138_png.rf.990533e6fdd2364fff8bf3cf6d9e304f.jpg
extracting: train/Drowning/138_png.rf.ee103341eea55db134f8703a8f69f776.jpg
extracting: train/Drowning/138_png.rf.ee6fca7cf869842e6f97efa910892bd3.jpg
extracting: train/Drowning/140_png.rf.1dc407923961218bc6faef4d2543ff10.jpg
extracting: train/Drowning/140_png.rf.673059691e281cc3aa80930f99cf7145.jpg
extracting: train/Drowning/140_png.rf.dd5ae6655001be174e041628a7c8be34.jpg
extracting: train/Drowning/141_png.rf.1903b89d2b2ae94b446fa1e9b096142a.jpg
extracting: train/Drowning/141_png.rf.d2e3120efcad7ce6f5482dffcaed6c0e.jpg
extracting: train/Drowning/141_png.rf.e1868d714d4de9dfdcd1e923e22268c1.jpg
extracting: train/Drowning/142_png.rf.05744e686a5b276426989aa4a07d3bb3.jpg
extracting: train/Drowning/142_png.rf.4ff2629a3bd3d3bd8c5c962174a3a1b1.jpg
extracting: train/Drowning/142_png.rf.c13ebd1cb56657e3b7503132df5b7ae3.jpg
extracting: train/Drowning/144_png.rf.07af60a006defba1d1c6c10d0c194e7e.jpg
extracting: train/Drowning/144_png.rf.b4065e703e323116a188778d9716a53d.jpg
extracting: train/Drowning/144_png.rf.edd3503ab0dab9dfe5649a3817791edd.jpg
extracting: train/Drowning/145_png.rf.3ad6de8aa0bf7650bfaf38b1bfc389f9.jpg
extracting: train/Drowning/145_png.rf.7b0b69b96d25e3bc363dd3b1f9873478.jpg
extracting: train/Drowning/145_png.rf.e7995386c5104e8b9209cd02360037f9.png
```

```
extracting: train/Drowning/146_png.rf.46f909bc6e5e56d179f98e5fa643f269.jpg
extracting: train/Drowning/146_png.rf.9010dfc93657ae2ada1e9a9997359fb7.jpg
extracting: train/Drowning/146_png.rf.b992d6de2d6e8692ebeaeff60eef4f8c.jpg
extracting: train/Drowning/147_png.rf.37ca8d208ce90ac6f513c7d36278a409.jpg
extracting: train/Drowning/147_png.rf.81ea842792f8b8ef58a05c71f604fb24.jpg
extracting: train/Drowning/147_png.rf.acc3df39955ecbdf7da2f787dddd03fb.jpg
extracting: train/Drowning/150_png.rf.240ec1185021df91d2d15d8e1ea12e50.jpg
extracting: train/Drowning/150_png.rf.d3c8124b558e7dab1077f516da010286c.jpg
```

```
# Import necessary library
from tensorflow.keras.preprocessing.image import ImageDataGenerator
```

```
# Data augmentation on training variable
train_datagen = ImageDataGenerator(rescale=1./255,
zoom_range=0.2,
horizontal_flip=True)
```

```
# Data augmentation on testing variable
test_datagen = ImageDataGenerator(rescale=1./255)
xtrain = train_datagen.flow_from_directory('/content/train',
target_size=(64,64),
class_mode='categorical',
batch_size=100)
```

Found 678 images belonging to 2 classes.

```
xtest = test_datagen.flow_from_directory('/content/test',
target_size=(64,64),
class_mode='categorical',
batch_size=100)
```

Found 28 images belonging to 2 classes.

```
print(xtrain.class_indices)
```

```
{'Drowning': 0, 'Not Drowning': 1}
```

```
print(xtest.class_indices)
```

```
{'Drowning': 0, 'Not Drowning': 1}
```