

TEST THE MODEL

```
!unzip '/content/drive/MyDrive/IBMPROJECT/conversation engine for deaf and dumb.zip'
```

```
from tensorflow.keras.models import load_model
```

```
from tensorflow.keras.preprocessing import image
```

```
import numpy as np
```

```
import cv2
```

```
model = load_model('/content/Real_time.h5')
```

```
img = image.load_img('/content/Dataset/test_set/H/107.png',target_size = (100,100))
```

```
img
```

```
from skimage.transform import resize
```

```
def detect(frame):
```

```
    img=image.img_to_array(frame)
```

```
    img = resize(img,(64,64,1))
```

```
    img = np.expand_dims(img,axis=0)
```

```
    pred=np.argmax(model.predict(img))
```

```
    op=['A','B','C','D','E','F','G','H','I']
```

```
    print("THE PREDICTED LETTER IS ",op[pred])
```

```
img=image.load_img("/content/Dataset/test_set/H/107.png")
```

```
detect(img)
```

```
1/1 [=====] - 0s 412ms/step
```

```
THE PREDICTED LETTER IS H
```

```
img = image.load_img('/content/Dataset/test_set/A/110.png')
```

```
pred=detect(img)
```

```
1/1 [=====] - 0s 23ms/step
```

THE PREDICTED LETTER IS A

```
img=image.load_img('/content/Dataset/test_set/F/108.png')
```

```
detect(img)
```

```
1/1 [=====] - 0s 25ms/step
```

THE PREDICTED LETTER IS F