Explanation

https://bit.ly/3dPd9sZ refer this link for the research paper used
https://bit.ly/2QP6rdo I credit Harshit Kedia for the open source code
In the above code I made some changes which are:

- I altered the function get_classification for our priorities which were to find the full and broken rice grains.
- I created an input function for us to use, where we can enter the image name and format.
- I modified the for loop to count the number of broken grain pieces so that we could include it in our broken grain percentage.

Visualizing Results

For the Image mixed_grain_1
The Predicted Number of rice grains = 322
The Predicted Percentage of broken rice grains = 83.54%

```
In [1]: runfile('D:/Data Science/Work/Akaike Technologies/Akaike
Computer Vision/Dataset/rice_input.py', wdir='D:/Data Science/Work/
Akaike Technologies/Akaike Computer Vision/Dataset')

Enter Image name with its format(img_name.jpg):mixed_grain_1.jpg
No. of rice grains= 322
Percentage of Broken Rice= 83.54
```

For the Image mixed_grain_2
The Predicted Number of rice grains = 302
The Predicted Percentage of broken rice grains = 87.09%

```
In [2]: runfile('D:/Data Science/Work/Akaike Technologies/Akaike
Computer Vision/Dataset/rice_input.py', wdir='D:/Data Science/Work/
Akaike Technologies/Akaike Computer Vision/Dataset')

Enter Image name with its format(img_name.jpg):mixed_grain_2.jpg
No. of rice grains= 302
Percentage of Broken Rice= 87.09
```

For the Image mixed_grain_3
The Predicted Number of rice grains = 442
The Predicted Percentage of broken rice grains = 88.01%

```
In [3]: runfile('D:/Data Science/Work/Akaike Technologies/Akaike
Computer Vision/Dataset/rice_input.py', wdir='D:/Data Science/Work/
Akaike Technologies/Akaike Computer Vision/Dataset')

Enter Image name with its format(img_name.jpg):mixed_grain_3.jpg
No. of rice grains= 442
Percentage of Broken Rice= 88.01
```

Limitations and Improving

One of the limitations in this case is that the code only works with our database. However, if I were given a new database, I will change the code.