# User Stories - Optimized

### Data preprocessing

1. As a user I want to be able to create my data so that I can feed them to my network
2. As a user I want to be able to use my existing data set of images so that I can feed it to the network
3. As a user I want to load the dataset into the model so that I can make classification
4. As a user I want to validate the dataset once the dataset is loaded so that I can train the model
5. As a user I want the system to preprocess the image data set so I can have the uniformity of the dataset
6. As a user I want my data set to be label so that I can have organized my training directories
7. As a user I want the system to organize the training directories so I can have a better view of the data set.
8. As a user I want my dataset to be saved once is preprocessed so that I can train the model
9. As a user I want the system to validate all the preprocessing steps so that I can train the model
10. As a user I want the system to inform me in case of an error so that I can know where to look at.

### Model Training

1. As a user I want to be able to set the number of the epochs so that I can control how many epochs my system would do
2. As a user I want to be able to set proportion of the learning rate so that I can control how accurate could be
3. As a user I want the system to print the key parameters for each training step so I can be aware of which stage it is
4. As a user I want the system to be able to build the model and initialize the model parameters so that I can train my model
5. As a user I want the built model to provide measure for multiclass and single classification so that I can be aware of the performance of the training process
6. As a user I want the system to validate all the training steps so that I can evaluate the model
7. As a user I want the system to handle termination exception so that I can have a functional training process
8. As a user I want the system to save the model history to an output configuration file so that I can keep track of the training process.
9. As a user I want the system to inform me in case of an error so that I can where I can look at.

### Model Evaluation

1. As a user I want the system to evaluate the model so that I can get the classification
2. As a user I want the evaluation model to load the trained model so that I can get the classification
3. As a user I want the evaluation model to predict a single test or batch of sample/s so that I can read the confidence score of the image/s.
4. As a user I want my evaluation model to visualize the predictions so that I can read them easier
5. As a user I want to evaluate a pretrained model so that I can use existing pretrained models.
6. As a user I want the evaluation model to plot accuracy and losses so that I can understand easier the metrics / measures of the evaluation
7. As a user I want to see the prediction of the evaluation so that I can get the classification
8. As a user I want the system to print report for performance so that I can know how the system behaves / performs.
9. As a user I want the to export the results of the evaluation so that I can read them.
10. As a user the system to validate all the evaluation steps so that I can get the classification
11. As a user I want the evaluation model to visualize the correct plots for the task so that I can understand the expected output
12. As a user I want the evaluation model to visualize the misclassified examples so that I can understand where the classification process has failed.
13. As a user I want the system to inform me in case of an error so that I can know where to look at.

### Cloud Support

1. As a user I want the system to be capable to be executed on the amazon web services so that I can have higher performance
2. As a user I want the system to be able to prepare the data on the amazon web services I can feed them to the network
3. As a user I want the system to be able to build the model on the amazon web services I can evaluate it
4. As a user I want the system to validate the build on the amazon web services I can know that there are no errors on the training process
5. As a user I want the system to inform me in case of an error so that I can know where to look at.