```
Neural_Network
      input_len
     - hidden_len
      output_len
      - max iterations

    iterations

    dataset_size

    mismatch

      least_error

    error

    minimum_error

     and 20 more...
     + Neural_Network()
     + set_input_len()
     + set_output_len()
     + set_hidden_len()
      + set_max_it()
     + set_minimum_error()
     + set_learning_rate()
     + set_momentum()
     + get_input_len()
     + get_output_len()
     and 8 more...
      - init()
     - train()
     predict()
      segmoidal_fn()
     propagate()
      cal_error()
      back_propagate()
      input_absent()
      calculate_net()
          File Manager

    write

    read

   read_ex_output_string
   input_population_string
   output_population_string
   - input_file

    expected_out_file

   output_file

    weights_file

   rank_output_strings
   ids
   + File_Manager()
   + set_input_file()
   + set_expected_out_file()
   + set_output_file()
   + set_weights_file()
   + set_rank_output_strings()
   + get_read_ex_output
   _string()
   + get_input_population
   _string()
   + get_output_population
    _string()
   + get_rank_output_strings()
   + do_function()
   + fill_rank_output()
   - read_input()
   read_expected_output()
   - read_weights()
   write_output()
   write_weights()
   convertInt()
                  fm
               GUI

    filePath

    fileDialog

    state

- ui
+ GUI()
+ ~GUI()
- valid_input()
fill_rank()
perform_train()
- perform_test()
 set_validators()
- set_styleSheet()
display_error()
prepare_report()
- on_quitButton_clicked()
- on_pushButton_clicked()
 on_pushButton_3_clicked()
- on_pushButton_4_clicked()
- on_pushButton_5_clicked()
- on_pushButton_6_clicked()
- on_lineEdit_editingFinished()
- on_lineEdit_3_editingFinished()
 on_lineEdit_4_editingFinished()
- on_textEdit_4_textChanged()
- on_lineEdit_5_editingFinished()
- on_lineEdit_7_editingFinished()
- on_lineEdit_10_editingFinished()
- on_tabWidget_currentChanged()
```