CSCI3130 Grader

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**Chapter 1** 

**README** 

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# **Chapter 2**

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# **Chapter 5**

# File Index

## 5.1 File List

Here is a list of all files with brief descriptions:

e_dates_diag.py
s_window.py
nit.py
rate.py
.py
_window.py
age_labs.py
ass_improvements.py
ngs.py
le dialog.py

10 File Index

## **Chapter 6**

## **Namespace Documentation**

## 6.1 create\_dates\_diag Namespace Reference

#### Classes

· class Ui Create dates dialog

### 6.2 dates\_window Namespace Reference

### Classes

class Ui\_dates\_window

### 6.3 db\_init Namespace Reference

### **Functions**

- def settings\_db\_create (db\_name=SETTINGS\_DB\_NAME, force=False)
- def settings\_db\_read\_settings (db\_name=SETTINGS\_DB\_NAME)
- def update\_settings (paths, local, db\_name=SETTINGS\_DB\_NAME)
- def grades\_db\_create (db\_name, force=False)
- def load\_student\_list\_into\_grades\_db (db\_name, year, semester, filename='students\_list3.txt')
- def insert\_students (ids, fname, lname, db\_name='./grades.sqlite3')
- def register\_students\_in\_class (pipeline\_ids, year, semester, db\_name='./grades.sqlite3')
- def get\_pipeline\_ids (db\_name='./grades.sqlite3')
- def get\_ids\_in\_class\_by\_year\_semester (year, semester, db\_name='./grades.sqlite3')
- def import previous grades into db (year, semester, db name='./grades.sglite3', filename='./grades.xls')
- def gen\_filenotfound\_resp (lab\_id, stud\_path, corr\_file, grader, att=None, next\_date=None, db\_name='./grades.
   sqlite3')
- def get resp and grade (grade id, db name='./grades.sqlite3')

- def get\_prev\_resp (grade\_id, class\_id, lab\_id, db\_name='./grades.sqlite3')
- def save\_a\_grade\_to\_db (grade\_id, grade, grader\_comment, extra\_comment, grader\_name, graded=True, pass fail=True, db name='./grades.sglite3')
- def init\_new\_lab (stud\_id, lab\_name, att, submitted, lab\_path, db\_name='./grades.sqlite3')
- def get\_lab\_names (db\_name='./grades.sqlite3')
- def update\_lab\_submissions\_paths (db\_name, repository\_root, year, semester)
- def get empty grades by lid (lab id, att, db name='./grades.sqlite3')
- def get all grades by lid (lab id, att, db name='./grades.sqlite3')
- def reconstruct\_grades\_and\_comments (db\_name='./grades.sqlite3')
- def generate final grades (db name, year, semester)
- def get max grade for lab (lid, year, semester, db name='./grades.sqlite3')
- def get\_grades\_by\_lab\_and\_att (lid, att, db\_name='./grades.sqlite3')
- def get lab filename (lab id, db name='./grades.sqlite3')
- def get\_lab\_max\_value (lab\_id, db\_name='./grades.sqlite3')
- def get full path (paths, local)
- def sync\_files (self=None)
- def export\_pdf (self=None)
- def save\_grade\_and\_report (grade\_id, grade, report, user\_comment, grader, db\_name='./grades.sqlite3')
- def commit\_gen\_report (grade\_id, db\_name='./grades.sqlite3')
- def get lab id (ltype, lab num)
- def register\_lab\_in\_semester (ltype, lab\_num, year, semester, due\_dates, db\_name='./grades.sqlite3')
- def get\_labid\_in\_schedule (lid, year, semester, db\_name='./grades.sqlite3')
- def get\_due\_date\_by\_labid (lid\_sem, att=None, db\_name='./grades.sqlite3')
- def get import dates by labid (lid sem, att=None, db name='./grades.sglite3')
- def gen\_report (lid\_sem, att=None, db\_name='./grades.sqlite3')
- def get\_pipids\_in\_class\_by\_year\_semester (year, semester, db\_name='./grades.sqlite3')

#### **Variables**

• string SETTINGS DB NAME = 'settings.sqlite3'

### 6.3.1 Function Documentation

#### 6.3.1.1 commit\_gen\_report()

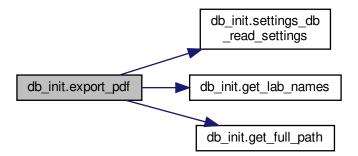
### Definition at line 749 of file db\_init.py.

### 6.3.1.2 export\_pdf()

Definition at line 709 of file db init.py.

```
709 def export_pdf(self=None):
710
        import subprocess
711
        import os
712
713
        paths, local = settings_db_read_settings()
714
        lab_ids, lab_types, lab_nums = get_lab_names()
715
        lab_names = []
716
        for i in range(len(lab_types)):
            lab_names.append(lab_types[i] + '_Lab_' + str(lab_nums[i]))
717
718
719
        full_path = get_full_path(paths, local) + "/"
720
        for lab_name in lab_names:
721
            nums_to_sync = '_{'
722
723
            while os.path.isdir(full_path + lab_name + '_' + str(i) + '/Answers'):
724
               nums_to_sync += str(i) + ','
725
726
            if i == 1:
727
                continue
            nums_to_sync = nums_to_sync[0:-1] + '}'
729
            # for case when we have only one directory to sync
            if len(nums_to_sync) == 4:
730
731
                nums_to_sync = '_1'
            if len(nums_to_sync) > 1:
732
733
               command = local[4] + ' ' + full_path + lab_name + nums_to_sync + '/Answers/*.pdf ' +
      os.path.expanduser(paths[2]) + lab_name + '/'
734
               process = subprocess.Popen(os.path.expandvars(command), stdout=subprocess.PIPE, shell=True)
                process.communicate()
735
736
                # print(output)
737
                # print(error)
738
739
```

Here is the call graph for this function:



Here is the caller graph for this function:



#### 6.3.1.3 gen filenotfound resp()

Definition at line 408 of file db\_init.py.

```
408 def gen_filenotfound_resp(lab_id, stud_path, corr_file, grader, att=None,
      next_date=None, db_name='./grades.sqlite3'):
409
        resp_text = 'file with name "{}" was not found.</br>'.format(corr_file)
        file_found = os.listdir(stud_path)
411
        potential_files = list()
        for file in file_found:
            if file not in ['grade.txt', 'penalty.txt', 'responce.txt', 'tech_info.txt', ]:
413
                potential_files.append(file)
415
        if potential_files:
            resp_text += '\nNext files|folders were found:</br>\n'
417
        for file in potential_files:
            if os.path.isdir(os.path.join(stud_path, file)):
    resp_text += file + ' - directory.</br>\n'
418
419
420
            else:
                resp_text += file + ' - regular file.</br>
421
422
423
        if att and att < 4 and next_date:</pre>
            resp_text += 'Please submit your file by next due date ({}).</br>\n'.format(next_date)
424
425
        if not os.path.isfile(db_name):
426
427
            raise Exception("DB not found")
428
        with lite.connect(db_name) as con:
429
            cur = con.cursor()
            cur.execute("UPDATE grades SET graded=strftime('%s','now'), pass_fail=FALSE, grader_comment=?,
430
       grader=? WHERE id=?", (resp_text, grader, lab_id))
431
            con.commit()
432
433
```

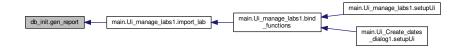
Here is the caller graph for this function:

```
db_init.gen_filenotfound_resp main.Grader.check_files
```

### 6.3.1.4 gen\_report()

Definition at line 810 of file db\_init.py.

Here is the caller graph for this function:



### 6.3.1.5 generate\_final\_grades()

### Definition at line 595 of file db\_init.py.

```
595 def generate_final_grades(db_name, year, semester):
596
        ids = get_ids_in_class_by_year_semester(year, semester, db_name)
597
        with lite.connect(db_name) as con:
598
            cur = con.cursor()
599
600
            labs = list()
601
            for sid in ids.values(): # using JOIN here will add too much extra data
                result = cur.execute('SELECT lab, MAX(grade * (select percent from penalties where
602
      id=GRADES.attempt)/100) '
603
                                'FROM GRADES WHERE class_id=? and attempt > 0 group by lab order by lab', (str(
      sid),))
604
                labs.append(result.fetchall() )
605
606
            stud_info = list()
            for sid in ids.keys():
607
               result = cur.execute('SELECT first_name, second_name FROM students WHERE pipeline_id=?', (str(
608
      sid),))
609
               stud_info.append(result.fetchall() )
610
611
       df_stud_info = pd.DataFrame(dict(zip(ids.keys(), stud_info)))
       df_grades = pd.DataFrame(dict(zip(ids.keys(), labs)))
612
        # id_list = list(ids.keys())
613
        # a = id_list[list(ids.values()).index(class_id)]
614
615
616
```

Here is the call graph for this function:

```
db_init.generate_final ____ db_init.get_ids_in __class_by_year_semester
```

#### 6.3.1.6 get\_all\_grades\_by\_lid()

Definition at line 540 of file db init.py.

```
540 def get_all_grades_by_lid(lab_id, att, db_name='./grades.sqlite3'):
541
        with lite.connect(db_name) as con:
542
            cur = con.cursor()
543
            result = cur.execute("SELECT submitted, class_id, id, lab_path FROM grades WHERE lab=? AND
       attempt=? ", (lab_id, att))
544
545
               subm, class_id, lab_id, lab_path = zip(*result.fetchall())
546
            except Exception as e:
547
               print(e)
548
                return None, None
549
550
        return subm, class_id, lab_id, lab_path
551
552
```

#### 6.3.1.7 get\_due\_date\_by\_labid()

Definition at line 787 of file db\_init.py.

```
787 def get_due_date_by_labid(lid_sem, att=None, db_name='./grades.sqlite3'):
788
        with lite.connect(db_name) as con:
789
            cur = con.cursor()
            if att:
790
                result = cur.execute('SELECT due_date_{{}} FROM lab_schedule WHERE id=?'.format(int(att)), (
791
      lid_sem,))
792
793
                result = cur.execute('SELECT due_date_1, due_date_2, due_date_3, due_date_4 FROM lab_schedule
       WHERE id=?', (lid_sem,))
           return result.fetchone()
794
795
        return None
796
797
```



## 6.3.1.8 get\_empty\_grades\_by\_lid()

## Definition at line 527 of file db\_init.py.

```
527 def get_empty_grades_by_lid(lab_id, att, db_name='./grades.sqlite3'):
528
        with lite.connect(db_name) as con:
529
            cur = con.cursor()
530
            result = cur.execute("SELECT submitted, class_id, id, lab_path FROM grades WHERE lab=? AND
       attempt=? AND graded is NULL", (lab_id, att))
531
            try:
532
                subm, class_id, lab_id, lab_path = zip(*result.fetchall())
533
            except Exception as e:
534
                # print(e)
535
                return None, None, None, None
536
537
        return subm, class_id, lab_id, lab_path
538
539
```

# 6.3.1.9 get\_full\_path()

# Definition at line 672 of file db\_init.py.

```
672 def get_full_path(paths, local):
673    import os
674    return os.path.expanduser(paths[1]) + str(local[1]) + "_" + str(local[2])
675
676
```



# 6.3.1.10 get\_grades\_by\_lab\_and\_att()

Definition at line 635 of file db\_init.py.

```
635 def get_grades_by_lab_and_att(lid, att, db_name='./grades.sqlite3'):
636
                         with lite.connect(db_name, detect_types=lite.PARSE_COLNAMES) as con:
637
                                       cur = con.cursor()
638
                                       \verb|result = cur.execute| ('select a.due_date_{\{0\}} as due_date, a.imported_{\{0\}} as import_date, 'select a.due_date, 'select 
639
                                                                                                             'b.type, b.num, b.max_grade,
                      'c.id as grade_id, c.submitted, c.graded, c.grade, c.pass_fail, c.grader_comment, c.extra_comment, c.grader, c.lab_path, '
640
641
                                                                                                            'd.pipeline_id, e.first_name, e.second_name, f.percent, c.grade*f.percent/100
                      as final_grade ^{\prime}
                                                                                                            'from lab_schedule a '
642
                                                                                                            ^{\prime} join lab_names b on a.lab_id=b.id ^{\prime}
643
                                                                                                             'join grades c on c.lab=a.id '
644
                                                                                                            'join class d on d.id=c.class_id '
645
                                                                                                            'join students e on e.pipeline_id=d.pipeline_id '
646
                                                                                                            'join penalties f on f.id=c.attempt
647
                                                                                                            'where c.attempt={0} AND a.id=? ORDER BY d.pipeline_id'.format(int(att)), (lid
648
                   ,))
649
                                       info_tup = result.fetchall()
650
                                       info_desc = result.description
651
                          return info_tup, info_desc
652
653
```

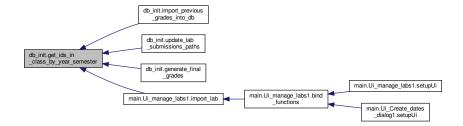
Here is the caller graph for this function:



#### 6.3.1.11 get\_ids\_in\_class\_by\_year\_semester()

Definition at line 309 of file db init.py.

```
309 def get_ids_in_class_by_year_semester(year, semester,
     db_name='./grades.sqlite3'):
310
       with lite.connect(db_name) as con:
311
           cur = con.cursor()
312
            result = cur.execute("SELECT pipeline_id, id FROM class\
313
                                 WHERE year=" + str(year) + " and semester=" + str(semester))
315
                res = result.fetchall()
316
                pip_to_id = dict(res)
                to_id_to_pip = dict([(res_id[1], res_id[0]) for res_id in res])
317
            except Exception as e:
319
               print(e)
320
                return None
321
        return pip_to_id, to_id_to_pip
322
323
324 #
         Takes xls file with grades from previous semester(s) and loads all grades into DB.
325 #
         In case students are not found in the DB and xls file contains ids - loads them too
326 #
         :param year: year when grades were assigned
327 #
         :param semester: semester when grades were assigned
         :param db_name: specific name of the grades DB
328 #
         :param filename: xls file to load
329 #
330 #
         :return: nothing
331 #
332
```



## 6.3.1.12 get\_import\_dates\_by\_labid()

#### Definition at line 798 of file db init.py.

```
798 def get_import_dates_by_labid(lid_sem, att=None, db_name='./grades.sqlite3'):
799
        with lite.connect(db_name) as con:
800
            cur = con.cursor()
801
            if att:
802
               result = cur.execute('SELECT imported_{}} FROM lab_schedule WHERE id=?'.format(int(att)), (
      lid sem,))
803
           else:
               result = cur.execute('SELECT imported_1, imported_2, imported_3, imported_4 FROM lab_schedule
804
       WHERE id=?', (lid_sem,))
805
            return result.fetchone()
806
        return None
807
808
809 # save grade and report(self.grade ids[self.cur idx], self.final grade, self.user comment, self.grader)
```

```
main.Ui_manage_labs1.setupUi

main.Ui_manage_labs1.setupUi

main.Ui_manage_labs1.setupUi

main.Ui_manage_labs1.setupUi

main.Ui_manage_labs1.setupUi

main.Ui_manage_labs1.setupUi

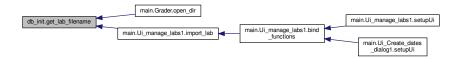
main.Ui_manage_labs1.setupUi

main.Ui_manage_labs1.setupUi
```

# 6.3.1.13 get\_lab\_filename()

Definition at line 654 of file db\_init.py.

Here is the caller graph for this function:

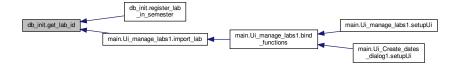


## 6.3.1.14 get\_lab\_id()

Definition at line 759 of file db\_init.py.



Here is the caller graph for this function:



## 6.3.1.15 get\_lab\_max\_value()

Definition at line 663 of file db\_init.py.



# 6.3.1.16 get\_lab\_names()

Definition at line 487 of file db\_init.py.

```
487 def get_lab_names(db_name='./grades.sqlite3'):
488
        with lite.connect(db_name) as con:
489
            cur = con.cursor()
            result = cur.execute("SELECT id, type, num FROM lab_names")
490
491
                lab_id, lab_type, lab_num = zip(*result.fetchall())
492
493
            except Exception as e:
494
                print(e)
495
                 return None, None, None
496
        return lab_id, lab_type, lab_num
497
498
```



## 6.3.1.17 get\_labid\_in\_schedule()

## Definition at line 779 of file db\_init.py.

```
779 def get_labid_in_schedule(lid, year, semester, db_name='./grades.sqlite3'):

with lite.connect(db_name) as con:

cur = con.cursor()

result = cur.execute('SELECT id FROM lab_schedule WHERE lab_id=? AND year=? AND semester=?', (lid, year, semester))

fetched_red = result.fetchone()

return int(fetched_red[0]) if fetched_red is not None else None

786
```

Here is the caller graph for this function:



#### 6.3.1.18 get\_max\_grade\_for\_lab()

#### Definition at line 617 of file db init.py.

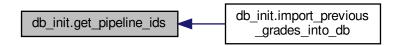
```
617 def get_max_grade_for_lab(lid, year, semester, db_name='./grades.sqlite3'):
618
        with lite.connect(db_name) as con:
619
            cur = con.cursor()
            result = cur.execute('SELECT e.pipeline_id as pipid, IFNULL(MAX(k.final_grade), 0) as grade '
620
621
                                  'FROM class e '
                                  'LEFT OUTER JOIN '
622
623
                                     (SELECT d.pipeline_id, c.grade*f.percent/100 AS final_grade '
624
                                      FROM grades c '
                                        JOIN class d ON d.id = c.class_id '
625
626
                                        JOIN penalties f ON f.id = c.attempt '
627
                                     WHERE c.lab = ? ) k '
                                  'ON e.pipeline_id = k.pipeline_id '
628
                                  'WHERE year=? AND semester=?
629
                                  'GROUP BY e.pipeline_id '
630
                                  'ORDER BY e.pipeline_id', (lid, int(year), int(semester)))
631
632
            return result.fetchall()
633
634
```



## 6.3.1.19 get\_pipeline\_ids()

Definition at line 290 of file db\_init.py.

```
290 def get_pipeline_ids(db_name='./grades.sqlite3'):
291
        with lite.connect(db_name) as con:
            cur = con.cursor()
293
            result = cur.execute("SELECT pipeline_id FROM students")
294
            try:
295
               resut = (ids[0] for ids in result.fetchall())
296
            except Exception as e:
               print(e)
                return None
298
299
        return resut
300
301
302 #
         :param year:
303 #
         :param semester:
         :param db_name:
304 #
305 #
         :return:
306 #
307
308
```



## 6.3.1.20 get\_pipids\_in\_class\_by\_year\_semester()

Definition at line 819 of file db\_init.py.

```
819 def get_pipids_in_class_by_year_semester(year, semester,
      db_name='./grades.sqlite3'):
        if not os.path.isfile(db_name):
820
             raise Exception("DB not found")
821
822
        with lite.connect(db_name) as con:
823
            cur = con.cursor()
             result = cur.execute('SELECT pipeline_id FROM class WHERE year=? AND semester=?', (year, semester))
824
        all_ids = result.fetchall()
return [elem[0] for elem in all_ids]
825
826
827
828
829
```

Here is the call graph for this function:



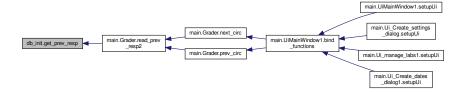


# 6.3.1.21 get\_prev\_resp()

# Definition at line 443 of file db\_init.py.

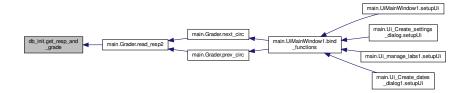
```
443 def get_prev_resp(grade_id, class_id, lab_id, db_name='./grades.sqlite3'):
444
        with lite.connect(db_name) as con:
445
             cur = con.cursor()
             result = cur.execute("SELECT grader_comment, extra_comment FROM grades WHERE class_id=? AND lab=?
446
       AND id<?", (class_id, lab_id, grade_id))
res = result.fetchall()
447
        if len(res) == 0:
    return ''
448
449
        else:
450
             gresp, uresp = zip(*res)
451
             return '\n'.join(('{} :\n{}'.format(gresp[i], uresp[i]) for i in range(len(gresp))))
452
453
454
```

Here is the caller graph for this function:



## 6.3.1.22 get\_resp\_and\_grade()

#### Definition at line 434 of file db init.py.



#### 6.3.1.23 grades\_db\_create()

## Definition at line 94 of file db\_init.py.

```
94 def grades_db_create(db_name, force=False):
95
       # from pathlib import Path
96
       print("I am going to create a grades DB with next name: ", db_name)
97
       db_name = str(db_name)
98
       if not os.path.isfile(db_name) or force:
99
           \# compute some vars before the connection
100
            lab_names = list()
            for i in range(1, 13):
101
                lab_names.append(('CLA' + str(i), 'Closed', i, 10))
102
103
            for i in range(1, 9):
104
                lab_names.append(('OLA' + str(i), 'Open', i, 20))
105
            lab_names.append(('OLA9', 'Open', 9, 100))
106
107
            with lite.connect(db_name) as con:
                cur = con.cursor()
108
109
                # TODO: force should remove 'IF NOT EXISTS' and add 'DROP TABLE' to ensure new table creation
110
                # WISH: add TRY blocks for each CREATE and spawn new info window in case of error
111
                print('Creating students...')
                cur.execute("""CREATE TABLE students (
113
                                pipeline_id
                                                        NOT NULL
                                                        PRIMARY KEY,
114
115
                                 first_name
                                                        NOT NULL,
                                                TEXT
                                 second_name
                                                        NOT NULL,
117
                                                TEXT,
                                 comment
118
                                 cheating_ratio INTEGER DEFAULT (0)
119
                con.commit()
120
                print('Done.')
121
                print('Creating semesters...')
                cur.execute("""CREATE TABLE semesters (
122
123
                                semester CHAR (1) NOT NULL PRIMARY KEY,
124
                                          VARCHAR
                                                       );""")
                                 name
125
                con.commit()
126
                print('Done.')
                print('Creating class...')
127
                cur.execute("""CREATE TABLE class (
128
129
                                                INTEGER PRIMARY KEY AUTOINCREMENT,
                                 id
130
                                 pipeline_id
                                                TEXT
                                                        REFERENCES students (pipeline_id),
                                                INTEGER,
131
                                 vear
                                                INTEGER REFERENCES semesters (semester),
132
                                 semester
                                 cheating_ratio INTEGER DEFAULT (0),
133
134
                                 UNIQUE (
                                     pipeline_id,
135
136
                                     year,
```

```
137
                                       semester)
                                                     );""")
138
                 con.commit()
139
                 print('Done.')
140
                 print('Creating labs...')
                 cur.execute("""CREATE TABLE lab_names (
141
142
                                  id
                                                            NOT NULL PRIMARY KEY,
                                                            NOT NULL,
143
                                  type
                                                    TEXT
144
                                                    INTEGER NOT NULL,
                                  num
145
                                                    INTEGER NOT NULL,
                                  max_grade
146
                                                   VARCHAR,
                                  name
147
                                                   VARCHAR,
                                  description
                                  grader_comment VARCHAR,
148
149
                                  mandatory_files VARCHAR );""")
150
                 con.commit()
151
                 print('Done.')
152
                 print('Creating grades...')
                 cur.execute("""CREATE TABLE grades (
153
                                                     INTEGER PRIMARY KEY AUTOINCREMENT,
154
                                  id
155
                                                             NOT NULL
                                  class_id
156
                                                             REFERENCES class (id) ON UPDATE CASCADE,
157
                                  lab
                                                             NOT NULL
                                                             REFERENCES lab_names (id) ON UPDATE CASCADE,
158
159
                                                     INT
                                                             DEFAULT (0),
                                  attempt
160
                                  submitted
                                                     INTEGER,
161
                                                     INTEGER.
                                  graded
                                                     INTEGER NOT NULL
162
                                  grade
                                                             DEFAULT (0),
163
                                                     BOOLEAN NOT NULL
164
                                  pass_fail
165
                                                             DEFAULT (0),
                                                     TEXT.
166
                                  grader_comment
167
                                                     TEXT.
                                  extra_comment
168
                                  report_generated BOOLEAN,
169
                                   report_time
                                                     INTEGER.
170
                                  lab path
                                                     VARCHAR,
171
                                  UNIOUE (
172
                                      class_id,
173
                                      lab,
174
                                      attempt,
                                       pass_fail) ON CONFLICT REPLACE );""")
175
176
                 con.commit()
177
                 print('Done.')
178
                 print('Creating lab schedule...')
cur.execute("""CREATE TABLE lab_schedule (
179
180
181
                                  id
                                             INTEGER PRIMARY KEY AUTOINCREMENT,
182
                                  lab id
                                                       REFERENCES lab_names (id),
183
                                  year
                                              INTEGER NOT NULL,
184
                                   semester
                                             INTEGER REFERENCES semesters (semester)
185
                                                      NOT NULL,
186
                                  due_date_1 INTEGER,
187
                                  due_date_2 INTEGER,
188
                                   due_date_3 INTEGER,
189
                                  due_date_4 INTEGER,
190
                                   imported_1 INTEGER,
191
                                  imported_2 INTEGER,
192
                                   imported_3 INTEGER,
193
                                  imported_4 INTEGER,
194
                                  posted_1
195
                                  posted_2
                                              INTEGER,
196
                                  posted_3
                                              INTEGER,
197
                                  posted_4
                                              INTEGER
198
199
                 con.commit()
200
                 print('Done.')
201
202
203
204
                 print('Filling semesters...')
                 cur.executemany('INSERT OR REPLACE INTO semesters\
(semester, name) VALUES (?, ?)', [(1, 'SPRING'), (2, 'SUMMER'), (3, 'FALL')])
205
206
207
                 con.commit()
                 print('Done.')
208
209
                 print('Filling labs...')
                 cur.executemany('INSERT OR REPLACE INTO lab_names\
210
                              (id, type, num, max_grade) VALUES (?, `?, ?, ?)', lab_names)
211
212
                 con.commit()
                 print('Done.')
213
                 print('Vacuuming...')
214
215
                 cur.execute('VACUUM:')
216
217
                 con.commit()
```

```
218
219
                print('Done.')
220
                print ('Creation of GRADES DB finished.')
221
222
223
224
225 #
         Imports list of students from file in format: 'id % lname, fname' into Grades DB.
226 #
         Should be called before first grading.
227 #
         :param db_name: db that contains grades and student info
228 #
         :param year: grading (current) year
229 #
         :param semester: grading (current) semester
230 #
         :param filename: file that contains student list
231 #
         :return: nothing
232 #
```

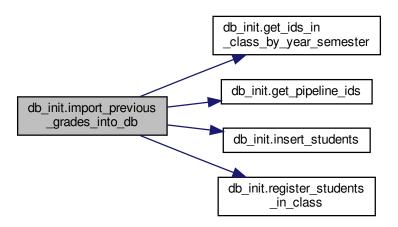


#### 6.3.1.24 import\_previous\_grades\_into\_db()

## Definition at line 333 of file db\_init.py.

```
333 def import_previous_grades_into_db(year, semester, db_name='./grades.sqlite3', filename='./grades.xls'):
334
         if not os.path.isfile(db_name):
335
             raise Exception("DB not found")
336
337
         df1 = pd.read_excel(filename)
338
339
             cls = df1.filter(like='CL')
340
         except Exception as e:
341
342
             print(e)
343
             cls = None # no CLA's found
344
345
             ols = df1.filter(like='OL')
346
         except Exception as e:
347
             print(e)
348
             ols = None # no OLAs found
349
350
351
352
             ids = df1.filter(like='sername').values.ravel().tolist()
```

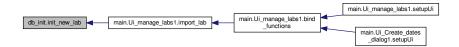
```
ids_len = len(ids)
353
354
        except Exception as e:
355
            print('Was not able to parse user ids, check xls file you are trying to import: ', e)
356
            raise e # may be improved in the future - strange case
357
358
           names = df1.filter(like='Name').values.ravel().tolist()
359
        except Exception as e: # either does not exist or has different name
360
          print(e)
361
            names = None
362
363
       class_dict = get_ids_in_class_by_year_semester(year, semester, db_name
364
365
        if (not class_dict and not names) or (class_dict and len(class_dict) < ids_len and not names):</pre>
366
            raise Exception ('Did not find ids in table CLASS and did not find names in xls file')
367
        elif names and (not class_dict or (class_dict and len(class_dict) < ids_len)):</pre>
368
            print ('Did not find existing students, but found names in xsl\nAdding new students...\n')
            existing_ids = get_pipeline_ids(db_name)
369
370
            need_to_update_students = False
371
            # otherwise just add ids to the class list
372
            if existing ids:
373
                for sid in ids:
374
                    if sid not in existing ids:
375
                        need_to_update_students = True
376
            else:
377
                need to update students = True
378
379
            \verb|if| need_to_update_students: \\
                fname, lname = zip(*(name.split(', ') for name in names))
380
                fname = (name.strip() for name in fname)
381
                lname = (name.strip() for name in lname)
382
                insert_students(ids, fname, lname, db_name)
383
384
            register_students_in_class(ids, year, semester, db_name)
385
        class_ids = [class_dict[sid] for sid in ids]
386
        if ols is None and cls is None or len(class_ids) == 0:
387
388
            raise Exception('No grades to load')
389
390
        grades_tupples = list()
391
        if ols is not None:
392
            for lab_name in ols:
393
                grades = (str(grade) for grade in ols[lab_name].values)
394
                grades_tupples += list(zip(class_ids, [lab_name] * ids_len, [-1] * ids_len, grades, ['TRUE'] *
      ids_len))
395
396
        if cls is not None:
397
            for lab_name in cls:
398
                grades = (str(grade) for grade in cls[lab_name].values)
399
                grades_tupples += list(zip(class_ids, [lab_name] * ids_len, [-1] * ids_len, grades, ['TRUE'] *
      ids_len))
400
401
        with lite.connect(db_name) as con:
402
            cur = con.cursor()
403
            cur.executemany('INSERT OR REPLACE INTO grades\
404
                         (class_id, lab, attempt, grade, pass_fail) VALUES (?, ?, ?, ?)', grades_tupples)
405
            con.commit()
406
407
```



## 6.3.1.25 init\_new\_lab()

Definition at line 473 of file db\_init.py.

```
473 def init_new_lab(stud_id, lab_name, att, submitted, lab_path, db_name='./grades.sqlite3'):
       if not os.path.isfile(db_name):
            raise Exception ("DB not found")
476
        with lite.connect(db_name) as con:
477
            cur = con.cursor()
            cur.execute('INSERT INTO grades (class_id, lab, attempt, submitted, lab_path) VALUES (?, ?, ?, ?,
478
       ?)', (stud_id, lab_name, att, submitted, lab_path))
479
            con.commit()
480
481
482 #
         :param db_name:
483 #
         :return:
484 #
485
486
```



#### 6.3.1.26 insert\_students()

```
def db_init.insert_students (
        ids,
        fname,
        lname,
        db_name = './grades.sqlite3' )
```

Definition at line 257 of file db init.py.

```
257 def insert_students(ids, fname, lname, db_name='./grades.sqlite3'):
       names_tupple = list(zip(ids, fname, lname, [0] * len(ids)))
259
       with lite.connect(db_name) as con:
260
          cur = con.cursor()
          cur.executemany('INSERT OR REPLACE INTO STUDENTS \
261
                     262
263
264
          con.commit()
265
266
267 #
        :param pipeline_ids:
268 #
        :param year:
269 #
        :param semester:
270 #
        :param db_name:
271 #
        :return:
272 #
273
274
```



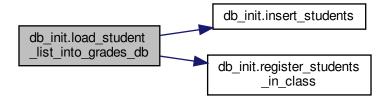
253 #

## 6.3.1.27 load\_student\_list\_into\_grades\_db()

```
def db_init.load_student_list_into_grades_db (
                 db_name,
                 vear,
                 semester,
                 filename = 'students list3.txt' )
Definition at line 234 of file db init.py.
234 def load_student_list_into_grades_db(db_name, year, semester,
      filename='students_list3.txt'):
235
236
         with open(filename, 'r') as sl:
                                                    ids, names = zip(*(line.strip().split('%') for line in sl))
             ids = list(sid.strip() for sid in ids)
237
             names = (name.strip() for name in names) # for case when file contains extra whitespaces lname, fname = <math>zip(*(namer.split(',') for namer in names))
238
239
240
             lname = (name.strip() for name in lname)
             fname = (name.strip() for name in fname)
241
242
243
         if os.path.isfile(db_name):
244
             insert_students(ids, fname, lname, db_name)
245
             register_students_in_class(ids, year, semester, db_name)
246
247
248 #
          Takes students' info from the parameters and insert them into grades \ensuremath{\mathsf{DB}}
249 #
          :param ids: pipeline ids
250 #
          :param fname: first name
251 #
          :param lname: last name
252 #
          :param db_name: specific name for grades DB
```

Here is the call graph for this function:

:return: nothing





## 6.3.1.28 reconstruct\_grades\_and\_comments()

## Definition at line 553 of file db\_init.py.

```
553 def reconstruct_grades_and_comments(db_name='./grades.sqlite3'):
        lab_id, lab_path = get_empty_grades(db_name)
554
        updated_grades = list()
555
556
        for l_iter in range(len(lab_path)):
            lpath = lab_path[l_iter]
557
            submition_t = int(lpath.split('-')[-1])
558
559
                with open(lpath+'/grade.txt', 'r') as gfile:
560
                    cur_grade = int(gfile.readline().strip())
561
            except Exception as e:
562
               print("Error during grade file reading :", e)
563
564
                cur_grade = 0
565
                cur_t_graded = int(os.path.getmtime(lpath + '/grade.txt'))
566
567
            except Exception as e:
568
                print("Error during grade file statistics retrieval: ", e)
569
                cur_t_graded = None
570
            pass_fail = 'TRUE' if cur_grade else 'FALSE'
571
572
573
                with open(lpath+^{\prime}/responce.txt^{\prime}, ^{\prime}r^{\prime}) as rfile:
574
                     cur_resp = rfile.readlines()
                     if type(cur_resp) == list:
    cur_resp = ' '.join(cur_resp)
575
576
577
            except Exception as e:
578
                print("Error during grade file reading", e)
579
                 cur_resp = 'NULL'
580
            updated_grades.append((submition_t, cur_grade, cur_t_graded, pass_fail, cur_resp, lab_id[l_iter]))
581
582
583
        with lite.connect(db_name) as con:
584
            cur = con.cursor()
585
            cur.executemany('UPDATE grades SET submitted=?, grade=?, graded=?, pass_fail=?, grader_comment=?'
                             'WHERE id=?', updated_grades)
586
587
            con.commit()
588
589
        with lite.connect(db_name) as con:
590
            cur = con.cursor()
591
            cur.execute('VACUUM;')
592
            con.commit()
593
594
```

#### 6.3.1.29 register\_lab\_in\_semester()

#### Definition at line 767 of file db init.py.

```
767 def register_lab_in_semester(ltype, lab_num, year, semester, due_dates,
     db_name='./grades.sqlite3'):
768
        lid = get_lab_id(ltype, int(lab_num))
        # TODO: add a check so you do not insert lab twice
769
770
       if lid is None:
771
           raise Exception('No such lab')
772
       if not os.path.isfile(db_name):
773
           raise Exception ("DB not found")
774
       with lite.connect(db_name) as con:
            cur = con.cursor()
776
            cur.execute('INSERT OR REPLACE INTO lab_schedule (lab_id, year, semester, due_date_1, due_date_2,
      due_date_3, due_date_4) VALUES (?, ?, ?, ?, ?, ?)', (lid, year, semester, due_dates[0], due_dates[1],
      due_dates[2], due_dates[3]))
777
           con.commit()
778
```



## 6.3.1.30 register\_students\_in\_class()

Definition at line 275 of file db\_init.py.

```
275 def register_students_in_class(pipeline_ids, year, semester,
      db_name='./grades.sqlite3'):
        len_id = len(pipeline_ids)
276
        names_tupple = list(zip(pipeline_ids, [year] * len_id, [semester] * len_id, [0] * len_id))
278
        with lite.connect(db_name) as con:
279
            cur = con.cursor()
280
            cur.executemany('INSERT OR REPLACE INTO class\
281
                        (pipeline_id, year, semester, cheating_ratio) VALUES (?, ?, ?, ?)', names_tupple)
282
            con.commit()
283
284
285 #
         :param db_name:
286 #
         :return:
287 #
288
289
```



#### 6.3.1.31 save\_a\_grade\_to\_db()

Definition at line 455 of file db\_init.py.

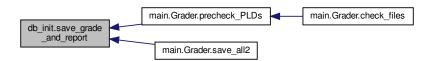
```
455 def save_a_grade_to_db(grade_id, grade, grader_comment, extra_comment, grader_name, graded=True, pass_fail=True, db_name='./grades.sqlite3'):
456
457
458
459 # def get_submissions_to_grade(lab_id, att, db_name='./grades.sqlite3'):
460 #
           if not os.path.isfile(db_name):
461 #
               raise Exception("DB not found")
462 #
           with lite.connect(db_name) as con:
463 #
               cur = con.cursor()
464 #
               \verb|result = cur.execute("SELECT id, FROM grades where lab=lab\_id attempt=att and graded is NULL")|
465 #
               try:
466 #
                    lab_id, lab_type, lab_num = zip(*result.fetchall())
467 #
               except Exception as e:
468 #
                    print(e)
469 #
                    return None, None, None
470 #
           return lab_id, lab_type, lab_num
471
472
```

## 6.3.1.32 save\_grade\_and\_report()

## Definition at line 740 of file db\_init.py.

```
740 def save_grade_and_report(grade_id, grade, report, user_comment, grader,
      db_name='./grades.sqlite3'):
741
       if not os.path.isfile(db_name):
742
            raise Exception("DB not found")
743
        with lite.connect(db_name) as con:
744
            cur = con.cursor()
745
            cur.execute("UPDATE grades SET graded=strftime('%s','now'), pass_fail=TRUE, grade=?,
       grader_comment=?, extra_comment=?, grader=? WHERE id=?", (grade, report, user_comment, grader, grade_id))
746
            con.commit()
747
748
```

Here is the caller graph for this function:



## 6.3.1.33 settings\_db\_create()

# Definition at line 18 of file db\_init.py.

```
18 def settings_db_create(db_name=SETTINGS_DB_NAME, force=False):
       if not force and os.path.isfile(db_name):
19
          user_choice = input('Do you really want to drop database ? Type "yes" to continue\n ')
20
          if not user_choice.isalpha() or not user_choice.lower() == 'yes':
21
22
               return False
23
       # DB creation logic goes here
24
       with lite.connect(db_name) as con:
2.5
26
           cur = con.cursor()
           cur.execute('DROP TABLE IF EXISTS PATHS')
2.7
```

```
28
           cur.execute("CREATE TABLE PATHS "
29
                       "( LOGISIM_HOME VARCHAR NOT NULL,\
30
                          GRADING_PATH VARCHAR NOT NULL,
31
                          IMPORT_PATH VARCHAR, \
                          GRADES_DB VARCHAR);
33
           cur.execute("CREATE TABLE LOCAL (\
                       GRADER_NAME VARCHAR, \
35
                       YEAR
                                   INT,\
                       SEMESTER
                                   CHAR (1),\
                       USE_STYLE
                                   BOOLEAN, \
                        SYNC_COMMAND VARCHAR);")
39
           con.commit()
40
       return True
41
42
43 #
        Reads settings from the DB with specified name in 'db_name'
        :param db_name: name of DB to query
44 #
45 #
        :return: paths - list of paths to various locations and local - info about grader, grading year, etc.
46 #
47
```

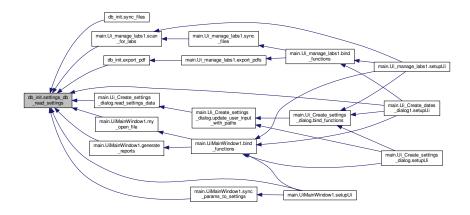


#### 6.3.1.34 settings\_db\_read\_settings()

```
\label{eq:db_read_settings} \mbox{ db_read_settings (} $$ db_name = SETTINGS_DB_NAME )$
```

## Definition at line 48 of file db\_init.py.

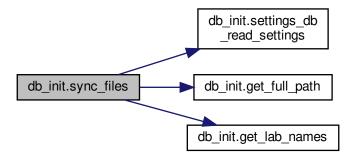
```
48 def settings_db_read_settings(db_name=SETTINGS_DB_NAME):
       paths = local = None
        if os.path.isfile(db_name):
            with lite.connect(db_name) as con:
                cur = con.cursor()
53
                 result = cur.execute("SELECT LOGISIM_HOME, GRADING_PATH, IMPORT_PATH, GRADES_DB\
                                          FROM PATHS")
55
                 paths = result.fetchone()
                 result = cur.execute("SELECT GRADER_NAME, YEAR, SEMESTER, USE_STYLE, SYNC_COMMAND\
56
                                                         FROM LOCAL")
58
                 local = result.fetchone()
59
60
       return paths, local
61
62
         Procedure that loads parameters specified in paths and local into settings DB
63 #
         :param paths: list of paths to various locations
:param local: local - info about grader, grading year, etc.
:param db_name: name of DB to query to update
64 #
65 #
66 #
67 #
         :return: nothing
68 #
69
```



#### 6.3.1.35 sync\_files()

# Definition at line 677 of file db\_init.py.

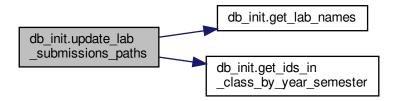
```
677 def sync_files(self=None):
678
        import subprocess
679
        import os
680
681
        paths, local = settings_db_read_settings()
        full_path = get_full_path(paths, local) + "/server_sync/"
682
683
        lab_ids, lab_types, lab_nums = get_lab_names()
684
        lab_names = []
685
        for i in range(len(lab_types)):
686
            lab_names.append(lab_types[i] + '_Lab_' + str(lab_nums[i]))
687
688
        if not os.path.isdir(full_path):
689
            os.makedirs(full_path)
690
            for lab_name in lab_names:
691
               os.makedirs(full_path + lab_name)
692
693
       proc_arr = []
        for lab_name in lab_names:
            command = local[4] + ' ' + os.path.expanduser(paths[2] + lab_name) + '/*.zip' + ' ' + full_path +
695
      lab_name + '/'
696
           try:
                proc_arr.append(subprocess.Popen(os.path.expandvars(command), stdout=subprocess.PIPE, shell=
697
      True))
698
                proc_arr[-1].communicate()
699
            except Exception as e:
700
                print('Error in rsync: ', e)
            # output, error = process.communicate()
701
            # print(output)
702
            # print(error)
703
704
705
        for proc_elem in proc_arr:
706
            proc_elem.wait()
707
708
```



#### 6.3.1.36 update lab submissions paths()

#### Definition at line 499 of file db\_init.py.

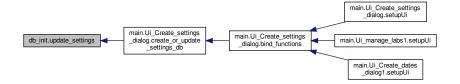
```
499 def update_lab_submissions_paths(db_name, repository_root, year, semester):
500
        import fnmatch
501
        import glob
502
        # import_previous_grades_into_db(year, semester, db_name, repository_root+'grades.xlsx')
503
        lab_id, lab_type, lab_num = get_lab_names()
504
        if lab_id is None or lab_type is None or lab_num is None:
505
            raise Exception("Error during lab type/num import: ")
506
        class_dict = get_ids_in_class_by_year_semester(year, semester, db_name
507
        total_labs = len(lab_type)
508
509
        all_dirs = list()
510
        for lab_iter in range(total_labs):
511
            for attempt in range(1, 5): # class rule - 4 attempts
                full_lab_name = repository_root + lab_type[lab_iter] + '_Lab_' + str(lab_num[lab_iter]) + '_' +
512
       str(attempt) +
513
                print('Processing', full_lab_name)
514
                for stud_id in class_dict.keys():
515
                    found_dir = glob.glob(full_lab_name+stud_id+'*')
                    if found_dir:
516
517
                        # since it is initial pass, we do not set pass/fail. It will be set later with grade
       and comment.
518
                        all_dirs.append((class_dict[stud_id], lab_id[lab_iter], attempt, 'FALSE', found_dir[-1]
      ))
519
520
        with lite.connect(db_name) as con:
521
            cur = con.cursor()
            cur.executemany('INSERT OR REPLACE INTO grades (class_id, lab, attempt, pass_fail, lab_path)'
522
                            ' VALUES (?, ?, ?, ?)', all_dirs)
523
524
            con.commit()
525
526
```



# 6.3.1.37 update\_settings()

Definition at line 70 of file db init.py.

```
70 def update_settings(paths, local, db_name=SETTINGS_DB_NAME):
       if os.path.isfile(db_name):
72
            with lite.connect(db_name) as con:
73
                cur = con.cursor()
74
                cur.execute('DELETE FROM PATHS;')
                cur.execute('INSERT OR REPLACE INTO PATHS (LOGISIM_HOME, GRADING_PATH, IMPORT_PATH, GRADES_DB)' VALUES (?, ?, ?, ?);', paths)
76
                cur.execute('DELETE FROM LOCAL;')
78
                cur.execute('INSERT OR REPLACE INTO LOCAL (GRADER_NAME, YEAR, SEMESTER, USE_STYLE,
       SYNC_COMMAND)'
79
                              'VALUES (?, ?, ?, ?);', local)
80
                con.commit()
81
82
            with lite.connect(db_name) as con:
83
                cur = con.cursor()
84
                cur.execute('VACUUM;')
85
                con.commit()
86
87
        Will create database that contains all information about grades
88 #
        :param db_name: path and name of the database
:param force: flag to overwrite existing db
89 #
90 #
         :return: Unknown
91 #
92 #
93
```



# 6.3.2 Variable Documentation

# 6.3.2.1 SETTINGS\_DB\_NAME

```
string db_init.SETTINGS_DB_NAME = 'settings.sqlite3'
```

Definition at line 8 of file db\_init.py.

# 6.4 generate Namespace Reference

## **Functions**

- def convert\_to\_pdf (html\_file, func\_type)
- def create\_html\_pdf\_report2 (lab\_dict)

Creates nice html report for submitted labs and converts it to pdf format.

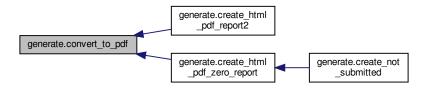
- def create\_html\_pdf\_zero\_report (filename, stud\_name, top\_part, bot\_part)
- def create\_not\_submitted (stud\_id, lab\_type, lab\_num, dir\_name)
- def generate\_answers3 (lid, att, year, semester, db\_name='./grades.sqlite3')
- def time\_to\_str\_with\_tz (in\_time)

## 6.4.1 Function Documentation

## 6.4.1.1 convert\_to\_pdf()

## Definition at line 19 of file generate.py.

```
19 def convert_to_pdf(html_file, func_type):
       if func_type == "wkhtmltopdf": # old way
       from subprocess import call
call(["wkhtmltopdf", "-q", html_file, html_file[:-4] + 'pdf'])
elif func_type == "pdfkit": # best margins
21
22
23
           import pdfkit
24
            options = {
25
26
                'page-size': 'A4',
                'margin-top': '0.0in',
27
                'margin-right': '0.0in'
2.8
                'margin-bottom': '0.0in',
29
                'margin-left': '0.0in',
30
31
           pdfkit.from_url(html_file, html_file[:-4] + 'pdf', options=options)
32
       elif func_type == 'weasyprint': # potentially the fastest
3.3
            # if string is passed as param, but has margins problem
34
35
           with open(html_file, 'r') as html_in_file:
    cont = html_in_file.readlines()
str_file = ''.join(cont)
            from weasyprint import \operatorname{HTML}
36
37
38
            pdf = HTML(string=str_file)
39
            {\tt pdf.write\_pdf(html\_file[:-4] + 'pdf')}
40
41
42
43 # def create_html_pdf_report(joined_path, stud_name, cur_dir, grade, max_points, penalty,
44 #
                                   final_score, top_part, bot_part, generated_time):
45 #
46 #
         Creates nice html report for submitted labs and converts it to pdf format.
47 #
         TODO: use latex instead of ugly html.
48 #
          :param joined_path: working directory
49 #
          :param stud_name: full student name(first, last)
50 #
          :param cur_dir: directory with all labs(usually same as joined_path)
51 #
          :param grade: what grade to assign.
          :param max_points: max possible grade for this lab.
52 #
53 #
          :param penalty: usually for resubmission, like 90%, 70%...
54 #
          :param final_score: final grade = grade * penalty
          :param top_part: predefined top part of html document
55 #
          :param bot_part: predefined bottom part of html document
56 #
57 #
          :param generated_time: some extra statistics for curious students.
58 #
          :return: nothing, pdf is generated instead.
59 #
60 #
          with open(joined_path + '-returned.html', 'w') as stud_report:
              stud_report.writelines(top_part)
61 #
62 #
              stud_report.write('Grading directory : ' + cur_dir + ' </br>')
              with open(joined_path + '/tech_info.txt', 'r') as tech_file:
                  stud_report.writelines(tech_file.readlines())
              stud_report.write('<i>Dear ' + stud_name + ', ')
              with open(joined_path + '/responce.txt', 'r') as resp_file:
70 #
                  stud_report.writelines(resp_file.readlines())
71 #
              stud_report.write("</i>\n"
                                  "According to the comment above, next grade was assigned: "
73 #
74 #
                                  "%d of %d <br/>\n \
75 #
                                  Your final grade is d*1.1f=<b>d</b> of $d <br/>n"
              % (grade, max_points, grade, penalty, final_score, max_points))
stud_report.write('This report was generated {} '.format(generated_time))
76 #
77 #
78 #
              # TODO add current date/time
79 #
              stud_report.writelines(bot_part)
80 #
          convert_to_pdf(joined_path + '-returned.html', "pdfkit")
81 #
          os.remove(joined_path + '-returned.html')
82. #
83 #
84
```



#### 6.4.1.2 create\_html\_pdf\_report2()

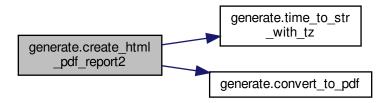
Creates nice html report for submitted labs and converts it to pdf format.

:return: nothing, pdf is generated instead.

Definition at line 90 of file generate.py.

```
90 def create_html_pdf_report2(lab_dict):
91
       with open('./answer.top', 'r') as partial_html:
92
            top_part = partial_html.readlines()
93
94
       with open('./answer.bottom', 'r') as partial_html:
9.5
            bot_part = partial_html.readlines()
96
97
       with open(lab_dict['lab_path'] + '-returned.html', 'w') as stud_report:
98
            stud_report.writelines(top_part)
99
100
             stud_report.write('Grading directory : {} </br>'.format(lab_dict['lab_path'].split('/')[-1]))
101
             stud_report.write('Due date was {} <br/>'.format(time_to_str_with_tz(lab_dict[
             stud_report.write('File was submitted at {} <br/>'.format(
102
      time_to_str_with_tz(lab_dict['submitted'])))
             stud_report.write('I imported your file at {} <br/>'.format(
103
      time_to_str_with_tz(lab_dict['import_date'])))
104
             if lab_dict['graded'] is not None:
                 stud_report.write('I graded your lab at {} <br/>'.format(
105
      time_to_str_with_tz(lab_dict['graded'])))
106
            else:
107
                 stud_report.write('I did not grad your lab or grade timestamp was not set.<br/>')
             stud\_report.write('Lab\ type: \'{}\'\ and\ it's\ number\ is\ \'{}\'\ \'\ br/>'.format(lab\_dict['type'],
108
      lab_dict['num']))
            stud_report.write('<i>Dear {} {}, '.format(lab_dict['first_name'], lab_dict['second_name']))
if lab_dict['grader_comment'] is None or len(lab_dict['grader_comment']) < 2:</pre>
109
110
111
                 stud_report.write('There were no comments.')
             else:
112
113
                 stud_report.write(lab_dict['grader_comment'])
             if lab_dict['extra_comment'] is not None and len(lab_dict['extra_comment']) > 0:
114
                 stud_report.write('<br/>\nExtra comment: {}'.format(lab_dict['extra_comment']))
115
116
             stud_report.write("</i>\n"
117
                                 "According to the comment above, next grade was assigned: {} of {} <br/>\n" Your final grade is computed as {}*{:.1f}=<b>{}</b> of {} <br/>\n"
118
119
                                 "".format(lab_dict['final_grade'], lab_dict['max_grade'], lab_dict['grade'],
120
```

```
lab_dict['percent']/100, lab_dict['final_grade'], lab_dict['max_grade']))
121
                                  if lab_dict['grade'] == 0:
122
                                               time_to_str_with_tz(lab_dict['due_date'] + 604800))) # one extra week
                                    \texttt{stud\_report.write('This report was generated \{}\}  \\ \texttt{n'.format(QDateTime.currentDateTime().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString().toString
123
                   (Qt.DefaultLocaleLongDate)))
124
125
                                    stud_report.writelines(bot_part)
126
                        convert_to_pdf(lab_dict['lab_path'] + '-returned.html', "pdfkit")
127
                        os.remove(lab_dict['lab_path'] + '-returned.html')
129
130
131 #
                          Creates nice html report for nonsubmitted labs and converts it to pdf format.
132 #
                           :param filename: filename with correct naming(zeroes instead of timestamp)
133 #
                           :param stud_name: full student name(first, last)
134 #
                           :param top_part: predefined top part of html document
                           :param bot_part: predefined bottom part of html document
135 #
136 #
                           :return:
137 #
138
```



# 6.4.1.3 create\_html\_pdf\_zero\_report()

#### Definition at line 139 of file generate.py.

```
139 def create_html_pdf_zero_report(filename, stud_name, top_part, bot_part):

140 with open(filename, 'w') as zeroes_file:

141 zeroes_file.writelines(top_part)

142 zeroes_file.write(stud_name + ' : You did not submit your lab. :(\n')

143 zeroes_file.write("According to comments above, next grade was assigned : 0 ")

144 zeroes_file.write("Please submit your file before the next due date.")

145 zeroes_file.writelines(bot_part)

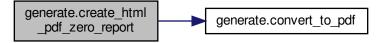
146 convert_to_pdf(filename, "pdfkit")

147 os.remove(filename)
```

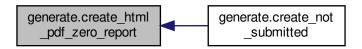
```
148
149
150 # def generate_answers(resubmit_num, dir_name, lab_type, lab_num, year, semester, grader_name):
151 #
152 #
          general function that figures out max points, filenames, etc
153 #
          and calls generate function with appropriate parameters
154 #
          :param resubmit_num: resubmission attempt
155 #
          :param dir_name: working dir
156 #
          :param lab_type: open or closed lab
          :param lab_num: just lab identifier
157 #
158 #
          :param year: used wit semester to identify correct class list
          :param semester: used wit year to identify correct class list
159 #
160 #
          :param grader_name: name that will be displayed in the report
161 #
          :return:
162 #
163 #
          students = {}
164 #
          # select
165 #
166 #
          ids = get_pipids_in_class_by_year_semester(year, semester, 'grades.sqlite3')
167 #
          with lite.connect('grades.sqlite3') as con:
168 #
              cur = con.cursor()
169 #
170 #
              for sid in ids.keys():
171 #
                  result = cur.execute('SELECT first_name, second_name FROM students WHERE pipeline_id=?',
       (str(sid),))
172 #
                  students[sid] = " ".join(result.fetchall()[0])
173 #
174 #
          if not students:
              with open('students_list1.txt', 'r') as stud_list_file:
    temp_arr = stud_list_file.readlines()
175 #
176 #
177 #
                   for line in temp_arr:
178 #
                      sid, name = line.split('%')
179 #
                       students[sid.strip()] = name.strip()
180 #
              del temp_arr
181 #
182 #
183 #
          if lab_type == 'Closed':
184 #
              max\_points = 10
          type_for_name = 'CL'
elif lab_type == 'Open':
185 #
186 #
187 #
              max_points = 20
              type_for_name = 'OL'
188 #
189 #
          else:
190 #
              raise Exception('Unknown lab type')
191 #
192 #
          if resubmit_num == 1:
193 #
              penalty = 1.0
194 #
          elif resubmit_num == 2:
195 #
              penalty = 0.9
196 #
          elif resubmit_num == 3:
              penalty = 0.7
197 #
          elif resubmit_num == 4:
198 #
199 #
             penalty = 0.5
200 #
          else:
201 #
              penalty = 0.0
202 #
203 #
          qenerated_time = QDateTime.currentDateTime().toString(Qt.DefaultLocaleLongDate)
204 #
205 #
          print('This is ', type_for_name, ' lab, so max points is ', max_points)
206 #
207 #
208 #
              shutil.rmtree(dir_name + 'Answers', ignore_errors=True)
209 #
              os.remove(dir_name + "grades.csv")
              os.remove(dir_name + "grades_for_" + type_for_name + "lab_num.csv")
210 #
211 #
          except Exception as e:
212 #
              print('Exception during dir preparetion : ', e)
213 #
214 #
          dirs = os.walk(dir_name).__next__()[1]
215 #
          with open('./answer.top', 'r') as partial_html:
216 #
217 #
              top_part = partial_html.readlines()
218 #
219 #
          with open('./answer.bottom', 'r') as partial_html:
220 #
              bot_part = partial_html.readlines()
221 #
222 #
          grades = list()
223 #
          for cur dir in dirs:
              student_id = cur_dir.split('-')[0]
224 #
              joined_path = os.path.join(dir_name, cur_dir)
225 #
              with open(joined_path + '/grade.txt', 'r') as grade_file:
226 #
227 #
                  grade = grade_file.readlines()
```

```
228 #
229 #
              grade = int(grade[0].strip())
230 #
              final_score = grade * penalty
231 #
              grades.append((student_id, final_score))
              create_html_pdf_report(joined_path, students[student_id], cur_dir, grade,
232 #
233 #
                                     max_points, penalty, final_score, top_part, bot_part, generated_time)
234 #
235 #
          submitted = [x.split('-')[0] for x in dirs]
236 #
237 #
          zeroes = list()
          for student in students:
238 #
239 #
              if student not in submitted:
240 #
                  grades.append((student, 0))
241 #
                  zeroes.append(student)
242 #
243 #
          if resubmit_num == 1:
244 #
              for student_id in zeroes:
245 #
                  filename = '%s/%s-%s%d-000000000-returned' % \
246 #
                             (dir_name, student_id, type_for_name, lab_num)
247 #
                  create_html_pdf_zero_report(filename+'.html', students[student_id], top_part, bot_part)
248 #
249 #
          with open(dir_name + '/' + 'grades.csv', 'w') as grades_file:
250 #
              for grade in sorted(grades):
251 #
                  grades_file.write("%s, %f \n" % grade)
252 #
          os.mkdir(dir name + '/Answers')
253 #
          files = os.walk(dir_name).__next__()[2]
254 #
255 #
          for file in files:
              if file[-3:] == 'pdf':
256 #
                  shutil.move(dir_name + '/' + file, dir_name + '/Answers/' + file)
257 #
258 #
259 #
          print('Done')
260 #
2.61 #
262 # def generate_answers2(resubmit_num, dir_name, lab_type, lab_num, year, semester, grader_name):
263 #
2.64 #
          general function that figures out max points, filenames, etc
265 #
          and calls generate function with appropriate parameters
266 #
          :param resubmit_num: resubmission attempt
267 #
          :param dir_name: working dir
268 #
          :param lab_type: open or closed lab
269 #
          :param lab_num: just lab identifier
270 #
          :param year: used wit semester to identify correct class list
271 #
          :param semester: used wit year to identify correct class list
272 #
          :param grader_name: name that will be displayed in the report
273 #
          :return:
274 #
          students = {}
275 #
276 #
          # select
277 #
          import sqlite3 as lite
278 #
          from db_init import get_ids_in_class_by_year_semester
279 #
          ids = get_ids_in_class_by_year_semester(year, semester, 'grades.sqlite3')
280 #
          with lite.connect('grades.sqlite3') as con:
281 #
              cur = con.cursor()
282 #
283 #
              for sid in ids.keys():
284 #
                  result = cur.execute('SELECT first_name, second_name FROM students WHERE pipeline_id=?',
285 #
                  students[sid] = " ".join(result.fetchall()[0])
286 #
287 #
          if not students:
288 #
              with open('students_list1.txt', 'r') as stud_list_file:
289 #
                  temp_arr = stud_list_file.readlines()
290 #
                  for line in temp_arr:
                      sid, name = line.split('%')
291 #
292 #
                      students[sid.strip()] = name.strip()
293 #
              del temp_arr
294 #
295 #
296 #
          if lab_type == 'Closed':
297 #
              max_points = 10
298 #
              type_for_name = 'CL'
          elif lab_type == 'Open':
299 #
300 #
              max_points = 20
              type_for_name = 'OL'
301 #
302 #
          else:
              raise Exception('Unknown lab type')
303 #
304 #
305 #
          if resubmit_num == 1:
306 #
              penalty = 1.0
          elif resubmit_num == 2:
307 #
```

```
308 #
              penalty = 0.9
309 #
          elif resubmit_num == 3:
310 #
              penalty = 0.7
          elif resubmit_num == 4:
311 #
312 #
             penalty = 0.5
313 #
314 #
              penalty = 0.0
315 #
316 #
          generated_time = QDateTime.currentDateTime().toString(Qt.DefaultLocaleLongDate)
317 #
318 #
          print('This is ', type_for_name, ' lab, so max points is ', max_points)
319 #
320 #
          try:
321 #
              shutil.rmtree(dir_name + 'Answers', ignore_errors=True)
              os.remove(dir_name + "grades.csv")
os.remove(dir_name + "grades_for_" + type_for_name + "lab_num.csv")
322 #
323 #
324 #
          except Exception as e:
325 #
              print('Exception during dir preparetion : ', e)
326 #
327 #
          dirs = os.walk(dir name). next ()[1]
328 #
329 #
          with open('./answer.top', 'r') as partial_html:
330 #
              top_part = partial_html.readlines()
331 #
332 #
          with open('./answer.bottom', 'r') as partial_html:
333 #
              bot part = partial html.readlines()
334 #
335 #
          grades = list()
          for cur_dir in dirs:
336 #
337 #
              student_id = cur_dir.split('-')[0]
              joined_path = os.path.join(dir_name, cur_dir)
with open(joined_path + '/grade.txt', 'r') as grade_file:
338 #
339 #
                  grade = grade_file.readlines()
340 #
341 #
              grade = int(grade[0].strip())
342 #
343 #
              final_score = grade * penalty
              grades.append((student_id, final_score))
344 #
345 #
              create_html_pdf_report(joined_path, students[student_id], cur_dir, grade,
346 #
                                       max_points, penalty, final_score, top_part, bot_part, generated_time)
347 #
348 #
          submitted = [x.split('-')[0] for x in dirs]
349 #
350 #
          zeroes = list()
351 #
          for student in students:
352 #
              if student not in submitted:
353 #
                   grades.append((student, 0))
354 #
                   zeroes.append(student)
355 #
356 #
          if resubmit_num == 1:
357 #
              for student_id in zeroes:
358 #
                   filename = '%s/%s-%s%d-000000000-returned' % \
359 #
                              (dir_name, student_id, type_for_name, lab_num)
360 #
                   create_html_pdf_zero_report(filename+'.html', students[student_id], top_part, bot_part)
361 #
362 #
          with open(dir_name + '/' + 'grades.csv', 'w') as grades_file:
363 #
              for grade in sorted(grades):
364 #
                   grades_file.write("%s, %f \n" % grade)
365 #
366 #
          os.mkdir(dir_name + '/Answers')
367 #
          files = os.walk(dir_name).__next__()[2]
368 #
          for file in files:
              if file[-3:] == 'pdf':
369 #
370 #
                   shutil.move(dir_name + '/' + file, dir_name + '/Answers/' + file)
371 #
372 #
          print('Done')
373
374 #
375 # def create_a_report(lab_dict):
376 #
377 #
          create_html_pdf_report2( lab_dict)
378
379
```



Here is the caller graph for this function:



## 6.4.1.4 create\_not\_submitted()

Definition at line 380 of file generate.py.

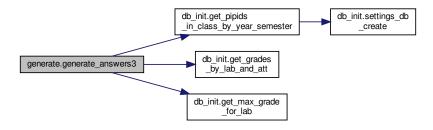


#### 6.4.1.5 generate\_answers3()

## Definition at line 391 of file generate.py.

```
391 def generate_answers3(lid, att, year, semester, db_name='./grades.sqlite3'):
         all_ids = get_pipids_in_class_by_year_semester(year, semester)
info_tup, info_desc = get_grades_by_lab_and_att(lid, att)
392
393
394
         col_names = [elem[0] for elem in info_desc]
         main_list = list()
395
396
         for tup in info_tup:
397
             a = dict()
398
             for i, elem in enumerate(tup):
399
                 a[col_names[i]] = elem
400
             main_list.append(a)
401
         graded_students = [elem['pipeline_id'] for elem in main_list]
402
         grades = [elem['final_grade'] for elem in main_list]
403
         grade_dict = dict(zip(graded_students, grades))
404
         lab_type = main_list[0]['type']
405
         lab_num = main_list[0]['num']
406
         dir_name = main_list[0]['lab_path']
407
         dir_name = dir_name[:dir_name.rfind('/')]
408
        correctd_lab_type = 'CL' if lab_type == 'Closed' else 'OL'
409
410
         # for elem in main_list:
411
               create_a_report(elem)
412
413
         # for elem in main_list:
414
               commit_gen_report(elem['grade_id'])
415
416
        not_subm_ids = [stud_id for stud_id in all_ids if stud_id not in graded_students]
417
418
         if len(main_list) + len(not_subm_ids) == 0:
419
420
421
        ans_dir = os.path.join(dir_name, 'Answers')
422
        if os.path.exists(ans_dir):
        shutil.rmtree(ans_dir, ignore_errors=True)
gr_file = os.path.join(dir_name, 'grades.csv')
423
424
425
        if os.path.exists(gr_file):
             os.remove(gr_file)
426
427
         gr_long_file = os.path.join(dir_name, "grades_for_{} lab_num.csv".format(correctd_lab_type))
428
         if os.path.exists(gr_long_file):
429
             os.remove(gr_long_file)
      files_to_rem = (os.path.join(dir_name, file) for file in (el for el in os.walk(dir_name).__next__()[2]
if el[-3:] in ['pdf', 'html']))
430
```

```
431
432
        with mp.Pool() as pool:
433
            pool.map(os.remove, files_to_rem)
434
            r1 = pool.map_async(create_html_pdf_report2, main_list)
435
            r2 = pool.map_async(commit_gen_report, (elem['grade_id'] for elem in main_list))
436
437
                pool.starmap(create_not_submitted, ((stud_id, correctd_lab_type, lab_num, dir_name) for stud_id
       in not_subm_ids))
438
            r1.wait()
439
            r2.wait()
440
        with open(os.path.join(dir_name, '{}_lab_{})_grades.csv'.format(lab_num, lab_type)), 'w') as grades_file
441
442
            grades_file.write("{1} Lab {0}, {1} Lab {0}\n".format(lab_num, lab_type))
            for stud_id in all_ids:
443
444
                if stud_id not in not_subm_ids:
445
                    grades_file.write("{:s}, {:d}\n".format(stud_id, int(grade_dict[stud_id])))
446
                else:
447
                    grades_file.write("{:s}, {:d}\n".format(stud_id, 0))
448
449
450
       best_grade_list = get_max_grade_for_lab(lid, year, semester)
451
       with open(os.path.join(dir_name, '{ _lab_{ }_grades_best_so_far.csv'.format(lab_num, lab_type)), 'w') as
       grades file:
452
            grades_file.write("{1} Lab {0}, {1} Lab {0}\n".format(lab_num, lab_type))
453
            for stud_tup in best_grade_list:
                grades_file.write('{}, {}\n'.format(stud_tup[0], stud_tup[1]))
454
455
        # for elem in main_list:
456
457
             create_html_pdf_report2(elem)
        # for elem in main_list:
458
              commit_gen_report(elem['grade_id'])
459
460
        # if att == 1: # we do not form report for second attempt since most people are happy with previous
461
       grade
462
            # for stud_id in not_subm_ids:
463
                 create_not_submitted(stud_id, correctd_lab_type, lab_num, dir_name)
464
465
        os.mkdir(os.path.join(dir_name, 'Answers'))
        files = os.walk(dir_name).__next__()[2]
466
467
        for file in files:
            if file[-3:] == 'pdf':
468
                shutil.move(os.path.join(dir_name, file), os.path.join(dir_name, 'Answers/{}'.format(file)))
469
470
471
        print('Done')
472
473
```



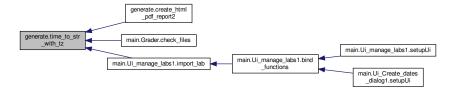
Here is the caller graph for this function:



### 6.4.1.6 time\_to\_str\_with\_tz()

### Definition at line 474 of file generate.py.

Here is the caller graph for this function:



# 6.5 main Namespace Reference

#### Classes

- class CircFile
- · class Grader
- class SimpleDialog

Wrapper class for very simple Ok Cancel dialog.

- class Ui\_Create\_dates\_dialog1
- class Ui\_Create\_settings\_dialog

Creates window that provides user with convenient way of changing settings that are stored in sqlite3 db.

- · class Ui manage labs1
- class UiMainWindow1

### **Functions**

- def read settings (db name='settings.sqlite3')
- def get\_grading\_period (lid, cur\_only=False)

### **Variables**

- string MAIN FILE NAME = "
- string MAIN FILE NAME OVERRIDE = "
- string styleData
- app = QtWidgets.QApplication(sys.argv)
- MainWindow = QtWidgets.QMainWindow()
- ui = UiMainWindow1()

#### 6.5.1 Function Documentation

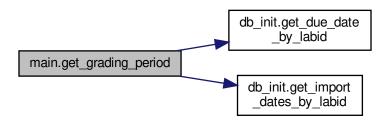
### 6.5.1.1 get\_grading\_period()

### Definition at line 1874 of file main.py.

```
1874 def get_grading_period(lid, cur_only=False):
1875
         # should comput correct grading period and return the due date in Unix timestamp format
1876
1877
        # due_timestamps = [int(f.split('_')[2]) for f in due_files]
1878
1879
        current_timestamp = int(time.time())
1880
         due_timestamps1 = get_due_date_by_labid(lid)
1881
        import_timestamps1 = get_import_dates_by_labid(lid)
1882
         cur_check = len(due_timestamps1)
1883
        for i, ts in enumerate(import_timestamps1):
1884
             if ts is None:
1885
                cur_check = i
1886
1887
        i = 0
1888
         if cur_check:
            while i < len(due_timestamps1) and import_timestamps1[i] is not None and due_timestamps1[i] <
1889
      current_timestamp and due_timestamps1[i] < import_timestamps1[cur_check-1]:</pre>
1890
1891
        if cur_only: # neede for CLA2-2
   i = max(0, i-1)
1892
1893
1894
        if i == 0:
1895
1896
             from_time = 0
             to_time = due_timestamps1[i]
1897
1898
        elif i > len(due_timestamps1)-1:
1899
             from time = due timestamps1[i-1]
             to_time = int(time.time())
1900
1901
         else:
1902
             from_time = due_timestamps1[i - 1]
1903
             to_time = due_timestamps1[i]
1904
1905
         cur check num = i+1
```

```
1906
           # cur_check += 1
1907
1908
1909
1910
            \begin{tabular}{ll} \# \ check\_files = [int(f.split('\_')[2]) \ for f in os.listdir(dir) if 'check\_' in f] \\ \end{tabular} 
1911
           # if len(check_files) > 0:
1912
                 if len(check_files) >= 4:
1913
                      cur_check_num = 0
1914
                      from_time = 0
1915
                      to_time = 0
1917
                     cur_check_num = len(check_files) + 1
                      from_time = due_timestamps[cur_check_num - 2]  # 0 => after first due date to_time = due_timestamps[cur_check_num - 1]  # 1 => before second due date
1918
1919
1920
           # else:
1921
               from_time = 0
1922
                  to_time = due_timestamps[0]
1923
                 cur_check_num = 1
1924
1925
          return cur_check_num, from_time, to_time, current_timestamp
1926
1927
```

Here is the call graph for this function:



Here is the caller graph for this function:

```
main.Ui_manage_labs1.setupUi

main.Ui_manage_labs1.import_lab

main.Ui_manage_labs1.bind
functions

main.Ui_manage_labs1.bind
functions

main.Ui_Create_dates
dialog1.setupUi
```

### 6.5.1.2 read\_settings()

Definition at line 63 of file main.py.

```
63 def read_settings(db_name = 'settings.sqlite3'):
      import os.path
65
      if os.path.exists(db_name):
         with lite.connect(db_name) as con:
             cur = con.cursor()
              try:
70
                  cur.execute('SELECT * FROM PATHS')
                  result = cur.fetchone()
                  for row in result:
                      print(row)
                  logisim_path = result[0][0]
75
                  working_dir = result[0][1]
                  # since import is not implemented - ignore import path: import_path = result[0][2]
                  return logisim_path, working_dir
              except Exception as e:
                  print('Was not able to get results from settings DB: ', e)
80
      return None
82
```

### 6.5.2 Variable Documentation

#### 6.5.2.1 app

```
main.app = QtWidgets.QApplication(sys.argv)
```

Definition at line 2012 of file main.py.

### 6.5.2.2 MAIN\_FILE\_NAME

```
string main.MAIN_FILE_NAME = ''
```

Definition at line 38 of file main.py.

### 6.5.2.3 MAIN\_FILE\_NAME\_OVERRIDE

```
string main.MAIN_FILE_NAME_OVERRIDE = ''
```

Definition at line 39 of file main.py.

### 6.5.2.4 MainWindow

```
main.MainWindow = QtWidgets.QMainWindow()
```

Definition at line 2013 of file main.py.

#### 6.5.2.5 styleData

```
string main.styleData
```

### Initial value:

```
1 = """
2 /* https://stackoverflow.com/questions/22332106/python-qtgui-qprogressbar-color */
3 QProgressBar
4 {
5     border: 1px solid grey;
6     border-radius: 5px;
7     text-align: center;
8     font-weight: bold;
9 }
10 QProgressBar::chunk
11 {
12     background-color: #d7801a;
13     width: 2.15px;
14     margin: 0.5px;
15 }
16     """
```

Definition at line 41 of file main.py.

```
6.5.2.6 ui
```

```
main.ui = UiMainWindow1()
```

Definition at line 2014 of file main.py.

# 6.6 main\_window Namespace Reference

# Classes

· class Ui mainWindow

# 6.7 manage\_labs Namespace Reference

### Classes

- class Ui\_manage\_labs
- 6.8 qt\_class\_improvements Namespace Reference

### Classes

- class BetterLineEdit
- class BetterPlainTextEdit
- 6.9 settings Namespace Reference

# **Classes**

- class Ui\_Settings
- 6.10 simple\_dialog Namespace Reference

# **Classes**

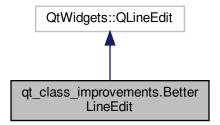
· class Ui\_Dialog

# **Chapter 7**

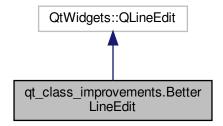
# **Class Documentation**

# 7.1 qt\_class\_improvements.BetterLineEdit Class Reference

 $Inheritance\ diagram\ for\ qt\_class\_improvements. Better Line Edit:$ 



Collaboration diagram for qt\_class\_improvements.BetterLineEdit:



### **Public Member Functions**

```
• def __init__ (self, args, kwargs)
```

• def eventFilter (self, obj, event)

typical way to add event handler

### **Static Public Attributes**

dclicked = QtCore.pyqtSignal()

# 7.1.1 Detailed Description

Definition at line 11 of file qt\_class\_improvements.py.

# 7.1.2 Constructor & Destructor Documentation

Definition at line 14 of file qt\_class\_improvements.py.

```
14    def __init__(self, *args, **kwargs):
15         QtWidgets.QLineEdit.__init__(self, *args, **kwargs)
16
17         self.installEventFilter(self)
18
```

### 7.1.3 Member Function Documentation

### 7.1.3.1 eventFilter()

typical way to add event handler

Definition at line 20 of file qt\_class\_improvements.py.

```
20    def eventFilter(self, obj, event):
21        if event.type() == QtCore.QEvent.MouseButtonDblClick:
22            self.dclicked.emit()
23        return False
24
25
26    # Overloaded QPlainTextEdit to track focus out.
27    # Needed to implement autosaving of user answer.
28    #
29
```

### 7.1.4 Member Data Documentation

#### 7.1.4.1 dclicked

```
qt_class_improvements.BetterLineEdit.dclicked = QtCore.pyqtSignal() [static]
```

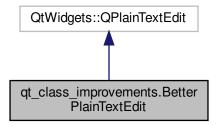
Definition at line 12 of file qt\_class\_improvements.py.

The documentation for this class was generated from the following file:

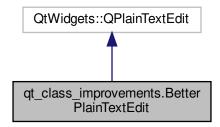
• qt\_class\_improvements.py

# 7.2 qt\_class\_improvements.BetterPlainTextEdit Class Reference

Inheritance diagram for qt\_class\_improvements.BetterPlainTextEdit:



Collaboration diagram for qt\_class\_improvements.BetterPlainTextEdit:



### **Public Member Functions**

- def \_\_init\_\_ (self, args, kwargs)
- def eventFilter (self, obj, event)

typical way to add event handler

### **Static Public Attributes**

• focus\_lost = QtCore.pyqtSignal()

### 7.2.1 Detailed Description

Definition at line 30 of file qt\_class\_improvements.py.

### 7.2.2 Constructor & Destructor Documentation

Definition at line 33 of file qt\_class\_improvements.py.

```
def __init__(self, *args, **kwargs):

QtWidgets.QPlainTextEdit.__init__(self, *args, **kwargs)

self.installEventFilter(self)
```

### 7.2.3 Member Function Documentation

### 7.2.3.1 eventFilter()

typical way to add event handler

Definition at line 39 of file qt\_class\_improvements.py.

```
39    def eventFilter(self, obj, event):
40         if event.type() == QtCore.QEvent.FocusOut:
41             self.focus_lost.emit()
42         return False
```

#### 7.2.4 Member Data Documentation

#### 7.2.4.1 focus lost

```
qt_class_improvements.BetterPlainTextEdit.focus_lost = QtCore.pyqtSignal() [static]
```

Definition at line 31 of file qt\_class\_improvements.py.

The documentation for this class was generated from the following file:

• qt\_class\_improvements.py

# 7.3 main.CircFile.circ\_type Class Reference

### **Public Member Functions**

def \_\_init\_\_ (self, name)

### **Public Attributes**

- name
- input\_pins
- output\_pins

# 7.3.1 Detailed Description

Definition at line 85 of file main.py.

# 7.3.2 Constructor & Destructor Documentation

Definition at line 86 of file main.py.

# 7.3.3 Member Data Documentation

### 7.3.3.1 input\_pins

```
main.CircFile.circ_type.input_pins
```

Definition at line 88 of file main.py.

### 7.3.3.2 name

```
\verb|main.CircFile.circ_type.name|\\
```

Definition at line 87 of file main.py.

### 7.3.3.3 output\_pins

```
main.CircFile.circ_type.output_pins
```

Definition at line 89 of file main.py.

The documentation for this class was generated from the following file:

• main.py

# 7.4 main.CircFile Class Reference

### Classes

- class circ\_type
- class PinType

### **Public Member Functions**

```
• def __init__ (self, filename)
```

def get\_parsed\_pins (self)

:return

def get\_parsed\_pins2 (self, what\_to\_grade)

### **Public Attributes**

- filename
- subtract
- final\_grade

### 7.4.1 Detailed Description

Definition at line 83 of file main.py.

# 7.4.2 Constructor & Destructor Documentation

### 7.4.2.1 \_\_init\_\_()

#### Definition at line 97 of file main.py.

### 7.4.3 Member Function Documentation

### 7.4.3.1 get\_parsed\_pins()

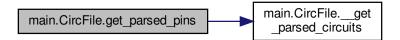
:return:

### Definition at line 124 of file main.py.

```
124
        def get_parsed_pins(self):
125
            self.__get_parsed_circuits()
126
            arr = self.__all_circuits
127
            all_pins = list()
128
            for elem in arr:
129
                pins = list()
130
                for child in elem.findall('comp'):
131
                    if child.get('name') == 'Pin':
132
                        pins.append(child)
133
                         # print(child.tag, child.attrib)
134
                all_pins.append(pins)
135
136
            clean_data = list()
137
            if all_pins:
138
                for pins in all_pins: # Although this looks like an error - it is not,
139
                     # there is only one iteration. This code will be extended later
140
                     # as I had in my older scripts to grade all PLDs.
141
                    clean_data = list()
                    for pin in pins:
name = '0'
142
143
                        io_type = '0'
144
145
                         facing = ''
146
                         for elem in list(pin):
147
                             if elem.get('name') in ['output', 'input', 'tristate']:
                                io_type = elem.get('name')
148
                             elif elem.get('name') == 'label':
149
                                name = elem.get('val')
150
151
                             elif elem.get('name') == 'facing':
                                facing = elem.get('val')
152
                        clean_data.append(self.PinType(name, io_type, facing))
153
154
155
                raise Exception('Error in pin parsing(all_pins)')
156
157
            output_pins = list()
```

```
158
             input_pins = list()
159
             other_pins = list()
160
             if clean_data:
161
                 for pin in clean_data:
                      if pin.type == 'output':
                     output_pins.append(pin)
elif pin.type == 'input' or pin.type == 'tristate':
165
                         input_pins.append(pin)
167
                          other_pins.append(pin)
169
170
                 raise Exception('Error in pin parsing(clean data)')
171
172
             return input_pins, output_pins, other_pins
174
```

Here is the call graph for this function:



Here is the caller graph for this function:

```
main.CircFile.get_parsed_pins main.Grader.check_file
```

### 7.4.3.2 get\_parsed\_pins2()

Definition at line 175 of file main.py.

```
175
        def get_parsed_pins2(self, what_to_grade):
176
177
             tree = ET.parse(self.filename)
178
             root = tree.getroot()
179
             arr=list()
180
             for child in root:
181
                 # print(child.tag)
182
                 if child.tag == 'circuit':
183
                     arr.append(child)
                 # if child.attrib["name"] == what_to_grade:
184
185
                       a = child
186
187
             all_circs = list()
188
189
             good_arr = list()
             for node in arr:
190
191
                 if node.get('name').upper() in what_to_grade:
                     good_arr.append(node)
192
193
                     circ_instance = self.circ_type(node.get('name'))
194
                     all_circs.append(circ_instance)
195
                     # print(list(node)[0].items()[0][1])
196
197
             all pins = list()
198
             for elem in good_arr:
199
                 pins = list()
                 for child in elem.findall('comp'):
200
                     if child.get('name') == 'Pin':
201
                          pins.append(child)
202
                          # print(child.tag, child.attrib)
203
204
                 all_pins.append(pins)
205
206
207
             clean_all_pins = list()
2.08
             for pins in all_pins:
                 clean_data = list()
209
                 for pin in pins:
210
211
                     name = '0'
                     type = '0'
212
                     for elem in list(pin):
    if elem.get('name') in ['output', 'input', 'tristate']:
213
214
                          type = elem.get('name')
elif elem.get('name') == 'label':
    name = elem.get('val')
215
216
217
218
                     clean_data.append(self.PinType(name, type))
219
                 clean_all_pins.append(clean_data)
220
             for i in range(len(clean_all_pins)):
221
                 for pin in clean_all_pins[i]:
222
                      if pin.type == 'output':
223
                          all_circs[i].output_pins.append(pin.name)
224
225
                          all_circs[i].input_pins.append(pin.name)
226
             return all_circs
227
228
```

#### 7.4.4 Member Data Documentation

#### 7.4.4.1 filename

main.CircFile.filename

Definition at line 98 of file main.py.

# 7.4.4.2 final\_grade

```
main.CircFile.final_grade
```

Definition at line 100 of file main.py.

#### 7.4.4.3 subtract

```
main.CircFile.subtract
```

Definition at line 99 of file main.py.

The documentation for this class was generated from the following file:

· main.py

# 7.5 main.Grader Class Reference

### **Public Member Functions**

- def \_\_init\_\_ (self, working\_directory, grader='lvan')
- def open\_dir (self)
- def check\_files (self)
- def get\_stud\_circ\_ind (self, student\_circuits, circ\_to\_grade)
- def precheck\_PLDs (self, stud\_ind)
- def get stud id (self)
- def log update (self, log event)
- def get\_parsed\_pins (self)
- def check\_pins\_facing (self, pins, corr\_facing)
- def check\_file (self)
- def check\_circ\_exist (self)
- def read\_resp (self)
- def read\_resp2 (self)
- def read\_prev\_resp2 (self)
- def read\_prev\_resp (self)
- def next\_circ (self)
- def prev\_circ (self)
- def check\_wrong (self)
- def save\_grade (self)
- def save\_responce (self)
- def save\_all (self)
- def save\_all2 (self)
- def generate\_response (self)
- def add\_to\_common\_answers (self, typed)

### **Public Attributes**

- to date
- attempt
- timestamps
- stud\_ids
- stud\_id
- · submitted
- input\_correct
- output\_correct
- lab\_max\_grade
- subtract
- final\_grade
- global\_log
- previous\_responses
- file\_list
- resp\_text
- user\_comment
- cur\_idx
- working\_dir
- input\_suggestion
- resp\_len
- logisim\_pid
- circ\_file\_name
- lab\_type
- lab num
- time
- · circ\_obj\_ref
- tot\_elem
- lab\_id
- grader
- semester
- lid
- · lab\_paths
- time\_from
- time\_to
- time\_cur
- time\_from\_qt
- time\_to\_qt
- time\_cur\_qt
- · what\_to\_grade
- all\_my\_circuits

# 7.5.1 Detailed Description

Definition at line 229 of file main.py.

### 7.5.2 Constructor & Destructor Documentation

```
7.5.2.1 __init__()
def main.Grader.__init__ (
                 self,
                working_directory,
                grader = 'Ivan' )
Definition at line 230 of file main.py.
        def __init__(self, working_directory, grader='Ivan'):
231
            self.\__from\_date = 0
232
            self.to_date = 0
233
            self.attempt = 0
234
            self.timestamps = list()
235
            self.stud_ids = list()
            self.stud_id = ''
236
237
            self.submitted = 0
238
            self.input_correct = False
239
            self.output_correct = False
240
            self.lab_max_grade = 0
241
            self.subtract = 0
242
            self.__wrong_clicked = False
243
            self.final_grade = 0
            self.__possible_answers_dict = {}
245
            self.global_log = ''
            self.previous_responses = ''
247
            self.__message_to_all = ''
            self.__graded_idlist = list()
248
            self.file_list = list()
self.resp_text = 'I did not find any errors. Good job!\n'
249
250
            self.user_comment = ''
251
252
            self.cur_idx = 0
            self.working_dir = working_directory
253
254
            self.input_suggestion = set('',)
255
            self.resp_len = 38
256
            self.logisim_pid = -1
257
            self.circ_file_name = MAIN_FILE_NAME
258
            self.lab_type =
259
            self.lab_num = 0
            self.time = 0
2.60
            self.circ_obj_ref = None
261
            self.tot_elem = 0
self.lab_id = ''
262
263
264
            self.grader = grader
```

#### 7.5.3 Member Function Documentation

#### 7.5.3.1 add\_to\_common\_answers()

2.65

```
\begin{tabular}{ll} $\operatorname{def main.Grader.add\_to\_common\_answers} & ( \\ & self, \\ & typed \end{tabular} \label{eq:common_answers}
```

### Definition at line 712 of file main.py.

```
712 def add_to_common_answers(self, typed):
713 self.input_suggestion.add(typed)
714
715
```

### 7.5.3.2 check\_circ\_exist()

### Definition at line 519 of file main.py.

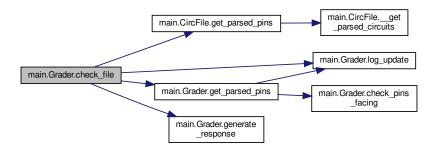
```
519
         def check circ exist(self):
             if not os.path.isfile(self.file_list[self.cur_idx] + '/' + self.circ_file_name):
    self.resp_text = 'File was not found'
520
521
                  file_found = os.listdir(self.file_list[self.cur_idx])
522
                  potential_files = list()
523
524
                  for file in file_found:
                       if file not in ['grade.txt', 'penalty.txt', 'responce.txt', 'tech_info.txt', ]:
    potential_files.append(file)
525
526
527
                  if potential_files:
                       self.resp_text += '\nNext files|folders were found:\n'
528
                  for file in potential_files:
    if os.path.isdir(self.file_list[self.cur_idx] + '/' + file):
529
530
                           self.resp_text += file + ' - directory.\n'
531
532
                       else:
                           self.resp_text += file + ' - regular file.\n'
533
                  self.resp_len = len(self.resp_text)
534
535
                  self.final\_grade = 0
536
                  return False
537
             return True
538
```

### 7.5.3.3 check\_file()

### Definition at line 498 of file main.py.

```
498
        def check_file(self):
499
            file = os.path.join(self.file_list[self.cur_idx], MAIN_FILE_NAME)
500
            circ_obj = CircFile(file)
501
502
            self.circ_obj_ref = circ_obj
503
            self.subtract = 0
504
            try:
505
                self.get_parsed_pins()
506
507
                self.log_update('Pins successfully parsed.')
                self.final_grade = self.lab_max_grade - self.subtract
508
509
                self.generate_response()
510
            except Exception as e:
                print(e)
511
512
                self.log_update(sys.exc_info()[0])
513
```

Here is the call graph for this function:

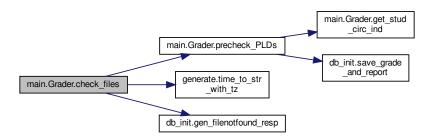


#### 7.5.3.4 check\_files()

Definition at line 348 of file main.py.

```
348
        def check_files(self):
349
           paths_with_files_list = list()
350
            good_ids = list()
351
            good_sids = list()
352
           good_tss = list()
353
354
            for i, stud_path in enumerate(self.lab_paths):
                cur_path = os.path.join(stud_path, self.circ_file_name)
355
                if os.path.exists(cur_path):
                   paths_with_files_list.append(stud_path)
358
                    good_ids.append(self.grade_ids[i])
359
                    good_sids.append(self.stud_ids[i])
360
                    good_tss.append(self.timestamps[i])
361
                    if self.lab_num > 8 and self.lab_type == 'Closed':
362
                        self.precheck_PLDs(i)
363
               else:
364
                    if self.attempt > 1:
365
                        next_date = time_to_str_with_tz(self.time_to + self.time_to - self.
      time_from)
366
367
                        next_date = time_to_str_with_tz(self.time_to + 604800) # 604800 -
      one week in unix time, this line needs corrections for case when you skip a week
                   gen_filenotfound_resp(self.grade_ids[i], stud_path, self.
368
      circ_file_name, self.grader, self.attempt, next_date)
369
            # self.grade_ids = good_ids
            # self.stud_ids = good_sids
370
371
            \# self.timestamps = good_tss
372
            return good_tss, good_sids, good_ids, paths_with_files_list
373
```

Here is the call graph for this function:

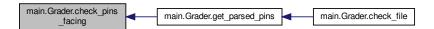


### 7.5.3.5 check\_pins\_facing()

Definition at line 487 of file main.py.

```
def check_pins_facing(self, pins, corr_facing):
    for pin in pins:
        if pin.facing != corr_facing and pin.facing != '':
            return False
        return True
```

Here is the caller graph for this function:



### 7.5.3.6 check\_wrong()

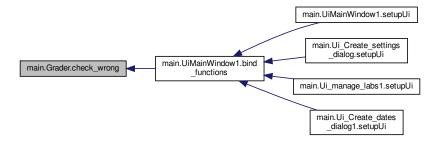
Definition at line 643 of file main.py.

```
def check_wrong(self):
    self.final_grade = 0
    self.resp_text = 'your lab was marked as wrong. You should fix errors listed below and resubmit it.

self.resp_len = len(self.resp_text)

646
```

Here is the caller graph for this function:



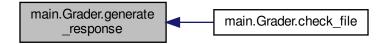
### 7.5.3.7 generate\_response()

```
\begin{tabular}{ll} def \ main.Grader.generate\_response \ ( \\ self \ ) \end{tabular}
```

Definition at line 693 of file main.py.

```
693
         def generate_response(self):
              self.resp_text = ''
694
              self.user_comment = ''
695
              if self.input_correct and self.output_correct:
696
                  self.resp_text = 'I did not find any errors. Good job!'
697
698
              else:
699
                  if not self.input_correct:
    self.resp_text += 'Your input pins have wrong orientation.\n'
700
701
702
                   if not self.output_correct:
              self.resp\_text += 'Your \ output \ pins \ have \ wrong \ orientation. \\ \ 'self.resp\_len = len(self.resp\_text)
703
704
705
```

Here is the caller graph for this function:



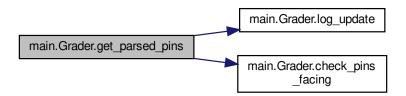
### 7.5.3.8 get\_parsed\_pins()

```
\operatorname{def\ main.Grader.get\_parsed\_pins} ( \operatorname{\mathit{self}} )
```

#### Definition at line 459 of file main.py.

```
459
        def get_parsed_pins(self):
460
461
                input_pins, output_pins, other_pins = self.circ_obj_ref.get_parsed_pins()
462
                if other_pins:
463
                    self.log_update('I was not able to recognize ' + str(len(other_pins)) + " pins.")
464
                self.input_correct = True
465
                self.output_correct = True
466
                if not self.check_pins_facing(pins=input_pins, corr_facing='east'):
467
                    self.subtract += 1
468
                    self.input_correct = False
469
                if not self.check_pins_facing(pins=output_pins, corr_facing='west'):
470
                    self.subtract += 1
471
                    self.output_correct = False
472
           except Exception as e: # TODO check for FileNotFoundError and assign ZERO
                print(e)
474
                # self.log_update(sys.exc_info()[0])
475
                # print(sys.exc_info()[0])
476
477
            # self.log_update('Done checking: ' + self.filename)
478
479
```

Here is the call graph for this function:



Here is the caller graph for this function:



### 7.5.3.9 get\_stud\_circ\_ind()

### Definition at line 374 of file main.py.

```
def get_stud_circ_ind(self, student_circuits, circ_to_grade):
    for stud_circ in student_circuits:
        if stud_circ.name.upper() == circ_to_grade.upper():
            return student_circuits.index(stud_circ)
        for stud_circ in student_circuits:
            print(stud_circ.name.upper())
        return -1
```

Here is the caller graph for this function:



### 7.5.3.10 get\_stud\_id()

```
\begin{tabular}{ll} $\operatorname{def main.Grader.get\_stud\_id} & ( \\ & self \end{tabular} ) \label{eq:self}
```

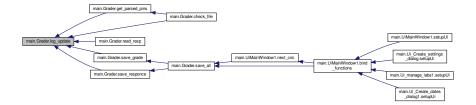
### Definition at line 443 of file main.py.

```
443 def get_stud_id(self):
444 return self.stud_id
445
```

### 7.5.3.11 log\_update()

### Definition at line 452 of file main.py.

Here is the caller graph for this function:

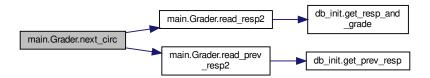


### 7.5.3.12 next\_circ()

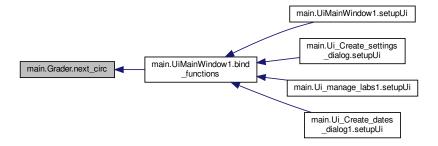
### Definition at line 601 of file main.py.

```
601
        def next_circ(self):
602
            self.cur_idx += 1
603
            # self.check_file(self.cur_idx)
            self.user_comment = ''
604
            graded = self.read_resp2()
605
606
            # if graded:
607
            self.read_prev_resp2()
608
            # if self.check_circ_exist():
609
                  self.read_resp()
610
            self.stud_id = self.stud_ids[self.cur_idx]
611
                 self.read_prev_resp()
612
            # except Exception as e:
613
                  print('Error during attempt to read prev resp when opening next circuit: ', e)
614
                  # TODO add handler
615
616
            return self.cur_idx
617
```

Here is the call graph for this function:



Here is the caller graph for this function:



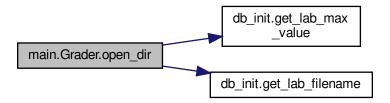
#### 7.5.3.13 open\_dir()

Definition at line 270 of file main.py.

```
def open_dir(self):
271
             # TODO check behaviour when directory is wrong.
272
              # if len(self.working_directory) < 3:
273
                    wdir = './'
             # else:
275
                    wdir = self.working_directory
276
277
             root, dirs, files = os.walk(self.working_dir).__next__()
278
279
             files.sort()
280
             # check_file = files[0] # not used at this time
             # if len(files) < 1:</pre>
281
                    raise Exception("No due files ? Extra files in working directory ?")
282
             # due_file = files[1] # TODO: change this to a better design. - Already changed
283
2.84
             self.lab_type = self.working_dir.split('/')[-2].split('_')[0]
self.lab_num = int(self.working_dir.split('/')[-2].split('_')[2])
285
286
```

```
287
            self.attempt = int(self.working_dir.split('/')[-2].split('_')[3])
288
289
            if self.lab_type == 'Closed':
                self.lab_id = 'CLA{}'.format(self.lab_num)
290
291
                # self.lab_max_grade = 10
292
            else: # Open
293
                # self.lab_max_grade = 20
294
                self.lab_id = 'OLA{}'.format(self.lab_num)
295
296
            self.lab_max_grade = get_lab_max_value(self.lab_id)
297
298
            # self.time = int(due_file[6:])
299
            # dirs.sort() # sort list of submitted labs
# if dirs[0] == 'Answers':
300
301
302
                  dirs.pop(0)
303
            self.circ_file_name = get_lab_filename(self.lab_id)[0]
304
305
            self.year, self.semester = self.working_dir.split('/')[-3].split('_')
            self.lid = get_labid_in_schedule(get_lab_id(self.lab_type, self.
306
      lab num), self.vear, self.semester)
307
            self.timestamps, self.stud_ids, self.grade_ids, self.lab_paths =
      get_empty_grades_by_lid(self.lid, self.attempt)
308
309
            atime = get_grading_period(self.lid, cur_only=True)
310
            self.time_from = atime[1]
            self.time\_to = atime[2]
311
            self.time_cur = atime[3]
312
313
            self.time_from_qt = QDateTime.fromSecsSinceEpoch(self.time_from)
314
            self.time_to_qt = QDateTime.fromSecsSinceEpoch(self.time_to)
315
            self.time_cur_qt = QDateTime.fromSecsSinceEpoch(self.time_cur)
316
317
            if self.lab_num > 8 and self.lab_type == 'Closed':
318
319
                if self.lab_num == 9:
                    self.what_to_grade = ['PC_BUS', 'AR_LD', 'PC_LD', 'PC_INC', 'DR_LD', 'DR_BUS']
320
321
                elif self.lab_num == 10:
                    self.what_to_grade = ["R_LD", "R_BUS", "S_LD", "ACC_CLR", "ACC_LD", "ACC_BUS", "ALU_SEL"]
322
323
                elif self.lab_num == 11:
                    self.what_to_grade = ["Z_LD", "OUTR_LD", "RAM_RW", "RAM_EN", "IR_LD", "SC_CLR"]
324
                circ = CircFile('/home/vanya/Documents/3130_labs/2018_2/PLDs.circ')
325
326
                self.all_my_circuits = circ.get_parsed_pins2(self.what_to_grade)
327
328
            if self.lab_paths is not None and len(self.lab_paths) > 0:
329
                self.timestamps, self.stud_ids, self.grade_ids, self.lab_paths = self.check_files()
330
331
            if self.lab_paths is None or len(self.lab_paths) == 0: # if there are no ungraded labs - display
       all labs
332
                self.timestamps, self.stud_ids, self.grade_ids, self.lab_paths =
      get_all_grades_by_lid(self.lid, self.attempt)
333
334
            # self.grades = [self.lab_max_grade]*len(self.grade_ids)
            # self.stud_ids = dirs
# self.stud_ids = list()
335
336
337
            # self.timestamps = list()
338
            # # directory_list = list()
339
            # for name in dirs:
340
                  self.file_list.append(os.path.join(root, name))
                  temp_arr = name.split('-'
341
342
                  self.stud_ids.append(temp_arr[0])
343
                  self.timestamps.append(int(temp_arr[2]))
344
345
            # for file in self.file_list:
346
                  print(file)
347
```

Here is the call graph for this function:



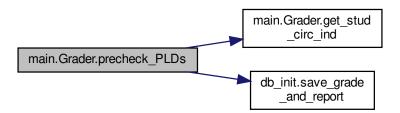
### 7.5.3.14 precheck\_PLDs()

#### Definition at line 382 of file main.py.

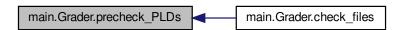
```
382
        def precheck_PLDs(self, stud_ind):
383
            file = os.path.join(self.lab_paths[stud_ind], self.circ_file_name)
384
385
            student_circuits = CircFile(file).get_parsed_pins2(self.what_to_grade)
386
            errors = 0
387
388
            out_str = '<br/>br> Next part was generated by automatic grader that I wrote several years ago.' \
389
                      'If you are not agree with something or suspect an error - please send me a
       message. <br/> With this grading approach you cat get nonzero grade ' \setminus
390
                      'even if not everything was correct.<br>
391
            for circ_to_grade in self.what_to_grade:
392
                for good_circ in self.all_my_circuits:
393
                    if good_circ.name.upper() == circ_to_grade.upper():
394
                         cur_ind = self.get_stud_circ_ind(student_circuits, circ_to_grade)
                         out_str += '<br>'
395
396
                         if cur_ind == -1:
397
                            out_str += '<font color="red">{} NOT FOUND!<br/>br> </font>'.format(circ_to_grade)
398
399
400
                            check_pins = student_circuits[cur_ind].input_pins
401
                             for i in range(len(check_pins)):
402
                                 if check_pins[i][0].lower() != 'c':
403
                                     # print(check_pins[i])
404
                                     if len(check_pins[i][1:]) > 0:
405
                                         try:
406
                                             pos = None
                                             for ch in check_pins[i]:
407
408
                                                 if not ch.isalpha():
409
                                                     pos = check_pins[i].index(ch)
410
                                             num = int(check_pins[i][pos:])
411
                                         except Exception as e:
412
413
                                             print(e)
414
415
                                         check_pins[i] = check_pins[i][0:1] + str(num)
                             student_circuits_sorted = sorted(check_pins)
416
```

```
417
                            good_circ_sorted = sorted(good_circ.input_pins)
418
                            sm = difflib.SequenceMatcher(None, student_circuits_sorted, good_circ_sorted)
419
                            res_ratio = sm.ratio()
420
421
                            if res_ratio > 0.99:
422
                                out_str += '<font color="green"> {} : PERFECT MATCH!<br> </font>'.format(
      circ_to_grade)
423
                            elif res_ratio > 0.15:
                                out_str += '{} :Great news : you match ratio is {:.1%} (>75%) <br>{} :
424
       .format(circ_to_grade, res_ratio, circ_to_grade, ''.join(student_circuits_sorted), circ_to_grade, ''.join(good_circ_sorted))
425
426
                                errors += 1
427
                            else:
428
                                out_str += '<font color="red">{} Bad news : you match ratio is only', \
                                           '{:.1%} - this means that you have to significantly change your
       circuit. <br> ' \
430
                                            'Please send me a message if you need some advice. <br > </font>'.
      format(circ_to_grade, res_ratio)
431
                                errors += 1
432
            final_grade = math.ceil(10 * (len(self.what_to_grade) - errors) / len(self.what_to_grade))
433
      # out_str += '<br/>br> Bad grade confidence: ' + conf + ' (this is for Ivan)<br/>br>' + '<br/>br> will be typed manually: <br/>br>'
434
435
           save_grade_and_report(self.grade_ids[stud_ind], final_grade, out_str, None,
      self.grader)
436
            return final_grade, out_str
437
438
```

Here is the call graph for this function:



Here is the caller graph for this function:

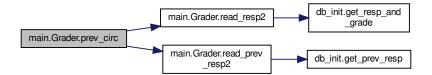


### 7.5.3.15 prev\_circ()

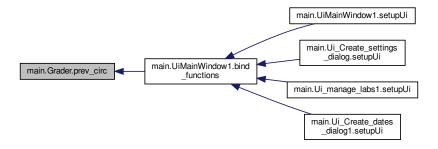
Definition at line 622 of file main.py.

```
622
       def prev_circ(self):
623
            self.cur_idx -= 1
            # self.check_file(self.cur_idx)
624
625
            self.user_comment = ''
626
           graded = self.read_resp2()
627
            if graded:
628
               self.read_prev_resp2()
629
            # if self.check_circ_exist():
630
                 self.read_resp()
631
            self.stud_id = self.stud_ids[self.cur_idx]
           # try:
632
633
                 self.read_prev_resp()
634
            # except Exception as e:
            \# print('Error during attempt to read prev resp when opening prev circuit: ', e)
635
636
                  # TODO add handler
            return self.cur_idx
638
```

Here is the call graph for this function:



Here is the caller graph for this function:



### 7.5.3.16 read\_prev\_resp()

Definition at line 581 of file main.py.

```
581
         def read_prev_resp(self):
582
             if self.attempt > 1:
                  self.previous_responses = ''  # TODO find same name in folder name
583
                  prev_att = int(self.working_dir[-2:-1])
584
585
                  for i in range(prev_att-1, 0, -1):
                      prev_working_dir = self.working_dir[:-2] + str(i) + '/'
586
587
                       for file in os.listdir(prev_working_dir):
588
                           if file.__contains__(self.stud_id):
589
                               # print(file)
590
                                    with open(prev_working_dir + file + '/responce.txt', 'r') as resp_file: self.previous_responses += str(i) + 'th submission :\n\t' \
591
592
593
                                                                       + '\n'.join(resp_file.readlines())
594
                               except Exception as e:
595
                                    print('Error in read prev responce: ', e)
596
```

### 7.5.3.17 read\_prev\_resp2()

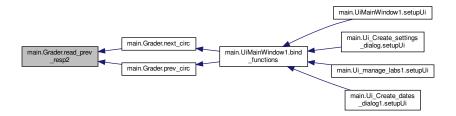
Definition at line 573 of file main.py.

```
def read_prev_resp2(self):
    self.previous_responses = get_prev_resp(self.grade_ids[self.cur_idx], self.stud_ids[
    self.cur_idx], self.lid)
```

Here is the call graph for this function:



Here is the caller graph for this function:



### 7.5.3.18 read\_resp()

Definition at line 544 of file main.py.

```
544
         def read_resp(self):
545
              self.submitted = self.timestamps[self.cur_idx]
547
                  with open(os.path.join(self.file_list[self.cur_idx], 'responce.txt'), 'r') as resp_file:
                      a = resp_file.readlines()
self.resp_text = ''.join(a)
548
549
                       self.resp_len = len(self.resp_text)
550
551
              except Exception as e:
552
                  print(e)
553
                  self.log_update(sys.exc_info()[0])
554
555
                  with open(os.path.join(self.file_list[self.cur_idx], 'grade.txt'), 'r') as grade_file:
    self.final_grade = int(grade_file.readline())
556
557
              except Exception as e:
558
559
                  print(e)
560
                  self.log_update(sys.exc_info()[0])
561
562
              # self.read_prev_resp()
563
```

Here is the call graph for this function:



### 7.5.3.19 read\_resp2()

Definition at line 564 of file main.py.

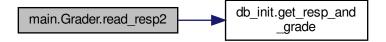
```
def read_resp2(self):
    self.final_grade, self.resp_text, self.user_comment, graded =
    get_resp_and_grade(self.grade_ids[self.cur_idx])

if graded is None:
    self.final_grade = self.lab_max_grade
    self.resp_text = 'I did not find any errors. Good job!'

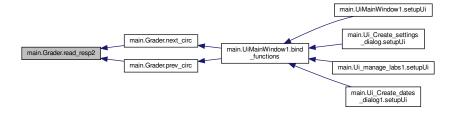
# self.resp_text = '' if self.resp_text is None else self.resp_text
    self.resp_len = len(self.resp_text)

return graded
```

Here is the call graph for this function:



Here is the caller graph for this function:



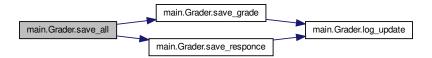
### 7.5.3.20 save\_all()

```
\begin{tabular}{ll} $\operatorname{def main.Grader.save\_all} & ( \\ & self \end{tabular} ) \label{eq:self}
```

Definition at line 677 of file main.py.

```
677 def save_all(self):
678 self.save_grade()
679 self.save_responce()
680
681
```

Here is the call graph for this function:



Here is the caller graph for this function:

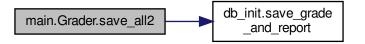


### 7.5.3.21 save\_all2()

Definition at line 686 of file main.py.

```
def save_all2(self):
    save_grade_and_report(self.grade_ids[self.cur_idx], self.final_grade, self.
    resp_text, self.user_comment, self.grader)
688
```

Here is the call graph for this function:



### 7.5.3.22 save\_grade()

```
\begin{tabular}{ll} $\operatorname{def main.Grader.save\_grade} & ( \\ & self \end{tabular} ) \end{tabular}
```

Definition at line 652 of file main.py.

```
def save_grade(self):
    file = os.path.join(self.lab_paths[self.cur_idx], 'grade.txt')

with open(file, 'w') as grade_file:
    grade_file.write(str(self.final_grade))

self.log_update('Grade saved')
```

Here is the call graph for this function:



Here is the caller graph for this function:



#### 7.5.3.23 save\_responce()

```
\begin{tabular}{ll} \tt def main.Grader.save\_responce \ ( \\ self \ ) \end{tabular}
```

Definition at line 664 of file main.py.

```
def save_responce(self):
    file = os.path.join(self.lab_paths[self.cur_idx], 'responce.txt')
    with open(file, 'w') as resp_file:
        resp_file.write(self.resp_text)
        if self.user_comment:
            resp_file.write('\nAdditional comment: ' + self.user_comment + '\n')
        self.log_update('Responce saved')
```

Here is the call graph for this function:



Here is the caller graph for this function:



#### 7.5.4 Member Data Documentation

#### 7.5.4.1 all\_my\_circuits

```
main.Grader.all_my_circuits
```

Definition at line 326 of file main.py.

# 7.5.4.2 attempt ${\tt main.Grader.attempt}$ Definition at line 233 of file main.py. 7.5.4.3 circ\_file\_name main.Grader.circ\_file\_name Definition at line 257 of file main.py. 7.5.4.4 circ\_obj\_ref main.Grader.circ\_obj\_ref Definition at line 261 of file main.py. 7.5.4.5 cur\_idx main.Grader.cur\_idx Definition at line 252 of file main.py. 7.5.4.6 file\_list main.Grader.file\_list Definition at line 249 of file main.py.

# 7.5.4.7 final\_grade

 ${\tt main.Grader.final\_grade}$ 

Definition at line 243 of file main.py.

7.5.4.8 global\_log main.Grader.global\_log Definition at line 245 of file main.py. 7.5.4.9 grader main.Grader.grader Definition at line 264 of file main.py. 7.5.4.10 input\_correct main.Grader.input\_correct Definition at line 238 of file main.py. 7.5.4.11 input\_suggestion main.Grader.input\_suggestion Definition at line 254 of file main.py. 7.5.4.12 lab\_id main.Grader.lab\_id Definition at line 263 of file main.py.

# 7.5.4.13 lab\_max\_grade

main.Grader.lab\_max\_grade

Definition at line 240 of file main.py.

7.5.4.14 lab\_num main.Grader.lab\_num Definition at line 259 of file main.py. 7.5.4.15 lab\_paths main.Grader.lab\_paths Definition at line 307 of file main.py. 7.5.4.16 lab\_type main.Grader.lab\_type Definition at line 258 of file main.py. 7.5.4.17 lid main.Grader.lid Definition at line 306 of file main.py. 7.5.4.18 logisim\_pid main.Grader.logisim\_pid Definition at line 256 of file main.py. 7.5.4.19 output\_correct main.Grader.output\_correct

Definition at line 239 of file main.py.

7.5.4.20 previous\_responses main.Grader.previous\_responses Definition at line 246 of file main.py. 7.5.4.21 resp\_len main.Grader.resp\_len Definition at line 255 of file main.py. 7.5.4.22 resp\_text main.Grader.resp\_text Definition at line 250 of file main.py. 7.5.4.23 semester main.Grader.semester Definition at line 305 of file main.py. 7.5.4.24 stud\_id main.Grader.stud\_id Definition at line 236 of file main.py.

# 7.5.4.25 stud\_ids

 ${\tt main.Grader.stud\_ids}$ 

Definition at line 235 of file main.py.

# 7.5.4.26 submitted main.Grader.submitted Definition at line 237 of file main.py. 7.5.4.27 subtract main.Grader.subtract Definition at line 241 of file main.py. 7.5.4.28 time main.Grader.time Definition at line 260 of file main.py. 7.5.4.29 time\_cur main.Grader.time\_cur Definition at line 312 of file main.py. 7.5.4.30 time\_cur\_qt main.Grader.time\_cur\_qt Definition at line 316 of file main.py. 7.5.4.31 time\_from main.Grader.time\_from Definition at line 310 of file main.py.

7.5.4.32 time\_from\_qt main.Grader.time\_from\_qt Definition at line 314 of file main.py. 7.5.4.33 time\_to main.Grader.time\_to Definition at line 311 of file main.py. 7.5.4.34 time\_to\_qt main.Grader.time\_to\_qt Definition at line 315 of file main.py. 7.5.4.35 timestamps  ${\tt main.Grader.timestamps}$ Definition at line 234 of file main.py. 7.5.4.36 to\_date main.Grader.to\_date Definition at line 232 of file main.py. 7.5.4.37 tot\_elem main.Grader.tot\_elem

Definition at line 262 of file main.py.

# 7.5.4.38 user\_comment

```
main.Grader.user_comment
```

Definition at line 251 of file main.py.

#### 7.5.4.39 what\_to\_grade

```
main.Grader.what_to_grade
```

Definition at line 320 of file main.py.

# 7.5.4.40 working\_dir

```
main.Grader.working_dir
```

Definition at line 253 of file main.py.

The documentation for this class was generated from the following file:

• main.py

# 7.6 main.CircFile.PinType Class Reference

# **Public Member Functions**

• def \_\_init\_\_ (self, name, iotype, facing=None)

#### **Public Attributes**

- name
- type
- facing

# 7.6.1 Detailed Description

Definition at line 91 of file main.py.

# 7.6.2 Constructor & Destructor Documentation

Definition at line 92 of file main.py.

# 7.6.3 Member Data Documentation

#### 7.6.3.1 facing

main.CircFile.PinType.facing

Definition at line 95 of file main.py.

## 7.6.3.2 name

main.CircFile.PinType.name

Definition at line 93 of file main.py.

## 7.6.3.3 type

```
main.CircFile.PinType.type
```

Definition at line 94 of file main.py.

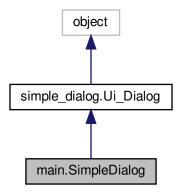
The documentation for this class was generated from the following file:

• main.py

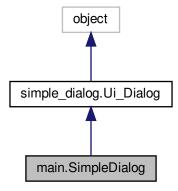
# 7.7 main.SimpleDialog Class Reference

Wrapper class for very simple Ok|Cancel dialog.

Inheritance diagram for main.SimpleDialog:



Collaboration diagram for main.SimpleDialog:



**Public Member Functions** 

• def setupUi (self, Dialog, phrase)

# **Additional Inherited Members**

# 7.7.1 Detailed Description

Wrapper class for very simple Ok|Cancel dialog.

Definition at line 1564 of file main.py.

# 7.7.2 Member Function Documentation

# 7.7.2.1 setupUi()

#### Definition at line 1569 of file main.py.

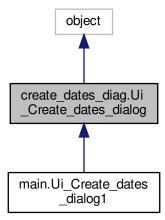
```
1569 def setupUi(self, Dialog, phrase):
1570 super().setupUi(Dialog)
1571 self.label_main_question.setText(phrase)
1572
```

The documentation for this class was generated from the following file:

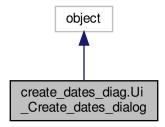
• main.py

# 7.8 create\_dates\_diag.Ui\_Create\_dates\_dialog Class Reference

Inheritance diagram for create\_dates\_diag.Ui\_Create\_dates\_dialog:



Collaboration diagram for create\_dates\_diag.Ui\_Create\_dates\_dialog:



#### **Public Member Functions**

- def setupUi (self, Create\_dates\_dialog)
- def retranslateUi (self, Create\_dates\_dialog)

#### **Public Attributes**

- · verticalLayout
- horizontalLayout\_5
- lab\_path
- horizontalLayout
- init\_subm\_date\_time
- init\_label
- · horizontalLayout\_2
- first\_subm\_date\_time
- first\_label
- horizontalLayout\_3
- second\_subm\_date\_time
- second\_label
- · horizontalLayout\_4
- third\_subm\_date\_time
- third label
- buttonBox

# 7.8.1 Detailed Description

Definition at line 11 of file create\_dates\_diag.py.

#### 7.8.2 Member Function Documentation

#### 7.8.2.1 retranslateUi()

Definition at line 96 of file create\_dates\_diag.py.

```
def retranslateUi(self, Create_dates_dialog):
    _translate = QtCore.QCoreApplication.translate
    Create_dates_dialog.setWindowTitle(_translate("Create_dates_dialog", "Dialog"))
    self.lab_path.setToolTip(_translate("Create_dates_dialog", "Tripple for file dialog"))
    self.lab_path.setPlaceholderText(_translate("Create_dates_dialog", "DoubleClick to select path"))
    self.init_label.setText(_translate("Create_dates_dialog", "Submission date"))
    self.first_label.setText(_translate("Create_dates_dialog", "1st resubmission"))
    self.second_label.setText(_translate("Create_dates_dialog", "2nd resubmission"))
    self.third_label.setText(_translate("Create_dates_dialog", "3rd resubmission"))
```

#### 7.8.2.2 setupUi()

#### Definition at line 12 of file create\_dates\_diag.py.

```
12
       def setupUi(self, Create_dates_dialog):
13
           Create_dates_dialog.setObjectName("Create_dates_dialog")
           Create_dates_dialog.resize(589, 250)
           Create_dates_dialog.setMinimumSize(QtCore.QSize(500, 250))
           Create_dates_dialog.setMaximumSize(QtCore.QSize(1000, 300))
17
           icon = QtGui.QIcon()
           icon.addPixmap(QtGui.QPixmap("os_linux_1.ico"), QtGui.QIcon.Normal, QtGui.QIcon.Off)
           Create_dates_dialog.setWindowIcon(icon)
           self.verticalLayout = QtWidgets.QVBoxLayout(Create_dates_dialog)
           self.verticalLayout.setObjectName("verticalLayout")
           self.horizontalLayout_5 = QtWidgets.QHBoxLayout()
self.horizontalLayout_5.setObjectName("horizontalLayout_5")
24
           self.lab_path = BetterLineEdit(Create_dates_dialog)
           self.lab_path.setFocusPolicy(QtCore.Qt.StrongFocus)
25
           self.lab_path.setStatusTip(
26
           self.lab_path.setWhatsThis("")
28
           self.lab_path.setAccessibleName("")
29
           self.lab path.setAccessibleDescription("")
30
           self.lab path.setInputMask("")
31
           self.lab_path.setReadOnly(False)
           self.lab_path.setCursorMoveStyle(QtCore.Qt.LogicalMoveStyle)
32
           self.lab_path.setClearButtonEnabled(False)
33
           self.lab_path.setObjectName("lab_path")
34
           self.horizontalLayout_5.addWidget(self.lab_path)
35
36
           self.verticalLayout.addLayout(self.horizontalLayout_5)
37
           self.horizontalLayout = QtWidgets.QHBoxLayout()
38
           self.horizontalLayout.setObjectName("horizontalLayout")
```

```
self.init_subm_date_time = QtWidgets.QDateTimeEdit(Create_dates_dialog)
39
           self.init_subm_date_time.setMaximumSize(QtCore.QSize(150, 40))
           self.init_subm_date_time.setCalendarPopup(True)
41
           self.init_subm_date_time.setObjectName("init_subm_date_time")
           self.horizontalLayout.addWidget(self.init_subm_date_time)
44
           self.init_label = QtWidgets.QLabel(Create_dates_dialog)
           self.init_label.setObjectName("init_label")
           self.horizontalLayout.addWidget(self.init_label)
46
           self.verticalLayout.addLayout(self.horizontalLayout)
           self.horizontalLayout_2 = QtWidgets.QHBoxLayout()
           self.horizontalLayout_2.setObjectName("horizontalLayout_2")
           self.first_subm_date_time = QtWidgets.QDateTimeEdit(Create_dates_dialog)
           self.first_subm_date_time.setMaximumSize(QtCore.QSize(150, 35))
51
           self.first_subm_date_time.setCalendarPopup(True)
53
           self.first_subm_date_time.setObjectName("first_subm_date_time")
           self.horizontalLayout_2.addWidget(self.first_subm_date_time)
55
           self.first_label = QtWidgets.QLabel(Create_dates_dialog)
           self.first_label.setObjectName("first_label")
56
           self.horizontalLayout_2.addWidget(self.first_label)
           self.verticalLayout.addLayout(self.horizontalLayout_2)
58
           self.horizontalLayout_3 = QtWidgets.QHBoxLayout()
self.horizontalLayout_3.setObjectName("horizontalLayout_3")
59
60
           self.second_subm_date_time = QtWidgets.QDateTimeEdit(Create_dates_dialog)
61
62
           self.second subm date time.setMaximumSize(OtCore.OSize(150, 35))
           self.second_subm_date_time.setCalendarPopup(True)
63
           self.second_subm_date_time.setObjectName("second_subm_date_time")
64
           self.horizontalLayout_3.addWidget(self.second_subm_date_time)
65
           self.second_label = QtWidgets.QLabel(Create_dates_dialog)
66
           self.second_label.setObjectName("second_label")
67
68
           self.horizontalLayout_3.addWidget(self.second_label)
           \verb|self.verticalLayout.addLayout(self.horizontalLayout\_3)| \\
69
           self.horizontalLayout_4 = QtWidgets.QHBoxLayout()
70
           self.horizontalLayout_4.setObjectName("horizontalLayout_4")
71
72
           self.third_subm_date_time = QtWidgets.QDateTimeEdit(Create_dates_dialog)
73
           self.third_subm_date_time.setMaximumSize(QtCore.QSize(150, 35))
74
           self.third_subm_date_time.setCalendarPopup(True)
7.5
           self.third_subm_date_time.setObjectName("third_subm_date_time")
76
           self.horizontalLayout_4.addWidget(self.third_subm_date_time)
77
           self.third_label = QtWidgets.QLabel(Create_dates_dialog)
78
           self.third_label.setObjectName("third_label")
79
           self.horizontalLayout_4.addWidget(self.third_label)
80
           self.verticalLayout.addLayout(self.horizontalLayout_4)
81
           self.buttonBox = QtWidgets.QDialogButtonBox(Create_dates_dialog)
82
           self.buttonBox.setMaximumSize(QtCore.QSize(16777215, 40))
8.3
           self.buttonBox.setOrientation(QtCore.Qt.Horizontal)
84
           self.buttonBox.setStandardButtons(QtWidgets.QDialogButtonBox.Abort|
      QtWidgets.QDialogButtonBox.SaveAll)
85
           self.buttonBox.setObjectName("buttonBox")
           self.verticalLayout.addWidget(self.buttonBox)
86
87
88
           self.retranslateUi(Create_dates_dialog)
89
           self.buttonBox.accepted.connect(Create_dates_dialog.accept)
           self.buttonBox.rejected.connect(Create_dates_dialog.reject)
90
91
           QtCore.QMetaObject.connectSlotsByName(Create_dates_dialog)
           Create_dates_dialog.setTabOrder(self.init_subm_date_time, self.first_subm_date_time)
93
           Create_dates_dialog.setTabOrder(self.first_subm_date_time, self.second_subm_date_time)
           Create_dates_dialog.setTabOrder(self.second_subm_date_time, self.third_subm_date_time)
94
9.5
```

# 7.8.3 Member Data Documentation

#### 7.8.3.1 buttonBox

create\_dates\_diag.Ui\_Create\_dates\_dialog.buttonBox

Definition at line 81 of file create dates diag.py.

```
7.8.3.2 first_label
```

create\_dates\_diag.Ui\_Create\_dates\_dialog.first\_label

Definition at line 55 of file create\_dates\_diag.py.

## 7.8.3.3 first\_subm\_date\_time

create\_dates\_diag.Ui\_Create\_dates\_dialog.first\_subm\_date\_time

Definition at line 50 of file create\_dates\_diag.py.

#### 7.8.3.4 horizontalLayout

 $\verb|create_dates_diag.Ui_Create_dates_dialog.horizontalLayout|\\$ 

Definition at line 37 of file create\_dates\_diag.py.

## 7.8.3.5 horizontalLayout\_2

create\_dates\_diag.Ui\_Create\_dates\_dialog.horizontalLayout\_2

Definition at line 48 of file create\_dates\_diag.py.

#### 7.8.3.6 horizontalLayout\_3

create\_dates\_diag.Ui\_Create\_dates\_dialog.horizontalLayout\_3

Definition at line 59 of file create\_dates\_diag.py.

## 7.8.3.7 horizontalLayout\_4

 $\verb|create_dates_diag.Ui_Create_dates_dialog.horizontalLayout_4|$ 

Definition at line 70 of file create\_dates\_diag.py.

# 7.8.3.8 horizontalLayout\_5

create\_dates\_diag.Ui\_Create\_dates\_dialog.horizontalLayout\_5

Definition at line 22 of file create\_dates\_diag.py.

#### 7.8.3.9 init\_label

create\_dates\_diag.Ui\_Create\_dates\_dialog.init\_label

Definition at line 44 of file create\_dates\_diag.py.

#### 7.8.3.10 init\_subm\_date\_time

create\_dates\_diag.Ui\_Create\_dates\_dialog.init\_subm\_date\_time

Definition at line 39 of file create\_dates\_diag.py.

## 7.8.3.11 lab\_path

create\_dates\_diag.Ui\_Create\_dates\_dialog.lab\_path

Definition at line 24 of file create\_dates\_diag.py.

#### 7.8.3.12 second\_label

create\_dates\_diag.Ui\_Create\_dates\_dialog.second\_label

Definition at line 66 of file create\_dates\_diag.py.

# 7.8.3.13 second\_subm\_date\_time

 $\verb|create_dates_diag.Ui_Create_dates_dialog.second_subm_date_time|\\$ 

Definition at line 61 of file create\_dates\_diag.py.

# 7.8.3.14 third\_label

create\_dates\_diag.Ui\_Create\_dates\_dialog.third\_label

Definition at line 77 of file create\_dates\_diag.py.

#### 7.8.3.15 third\_subm\_date\_time

create\_dates\_diag.Ui\_Create\_dates\_dialog.third\_subm\_date\_time

Definition at line 72 of file create\_dates\_diag.py.

#### 7.8.3.16 verticalLayout

create\_dates\_diag.Ui\_Create\_dates\_dialog.verticalLayout

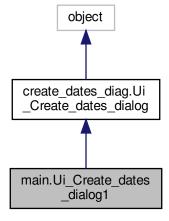
Definition at line 20 of file create\_dates\_diag.py.

The documentation for this class was generated from the following file:

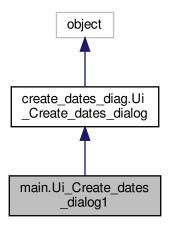
· create\_dates\_diag.py

# 7.9 main.Ui\_Create\_dates\_dialog1 Class Reference

Inheritance diagram for main.Ui\_Create\_dates\_dialog1:



Collaboration diagram for main.Ui\_Create\_dates\_dialog1:



# **Public Member Functions**

- def bind\_functions (self)
- def setupUi (self, Create\_dates\_dialog, selected\_lab=")
- def date\_select (self)
- def open\_file\_diag (self)

#### **Additional Inherited Members**

# 7.9.1 Detailed Description

Definition at line 1928 of file main.py.

# 7.9.2 Member Function Documentation

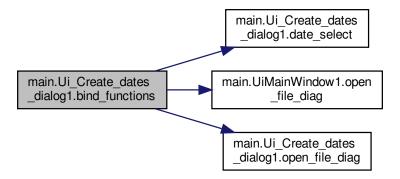
# 7.9.2.1 bind\_functions()

```
\label{lem:def_main.Ui_Create_dates_dialog1.bind_functions} \mbox{ (} \\ self \mbox{ )}
```

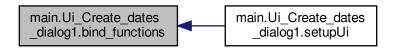
Definition at line 1934 of file main.py.

```
1934 def bind_functions(self):
1935 self.init_subm_date_time.dateTimeChanged.connect(self.date_select)
1936 # self.select_file_path.clicked.connect(self.open_file_diag)
1937 # self.lineEdit.left_clicked[int].connect(self.dummy_d)
1938 self.lab_path.dclicked.connect(self.open_file_diag)
1939
```

Here is the call graph for this function:



Here is the caller graph for this function:



#### 7.9.2.2 date\_select()

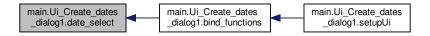
```
\begin{tabular}{ll} $\operatorname{def main.Ui\_Create\_dates\_dialog1.date\_select} & $\operatorname{\it self}$ ) \\ \end{tabular}
```

Definition at line 1987 of file main.py.

```
def date_select(self):
self.first_subm_date_time.setDateTime(self.init_subm_date_time.dateTime().addDays(7))
self.second_subm_date_time.setDateTime(self.init_subm_date_time.dateTime().addDays(14))
self.third_subm_date_time.setDateTime(self.init_subm_date_time.dateTime().addDays(21))

1991
```

Here is the caller graph for this function:



#### 7.9.2.3 open\_file\_diag()

Definition at line 1996 of file main.py.

Here is the caller graph for this function:

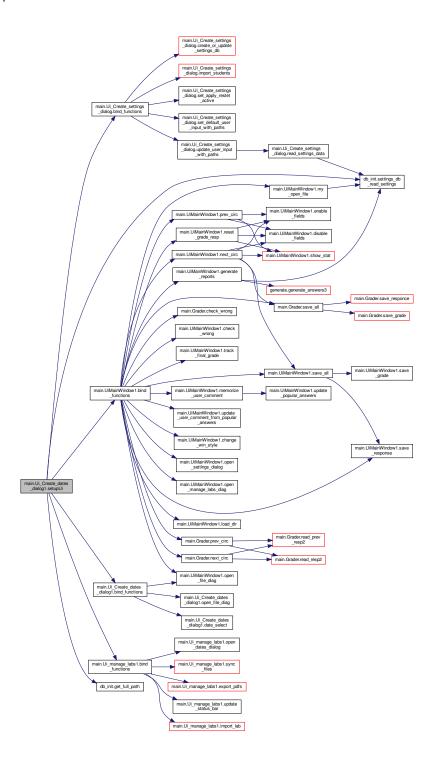


7.9.2.4 setupUi()

Definition at line 1971 of file main.py.

```
1971
          def setupUi(self, Create_dates_dialog, selected_lab=''):
1972
               super().setupUi(Create_dates_dialog)
               self.bind_functions()
1973
              self.init_subm_date_time.setDateTime(QDateTime.currentDateTime())
paths, local = settings_db_read_settings()
1974
1975
               good_path = get_full_path(paths, local) + '/server_sync/'
1976
1977
              try:
1978
                   good_path += selected_lab + '/'
1979
               except Exception as e:
               print('Exception when tried to append selected folder from Manage labs.', e) self.lab_path.setText(good_path)
1980
1981
1982
```

Here is the call graph for this function:



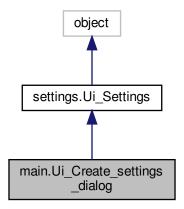
The documentation for this class was generated from the following file:

• main.py

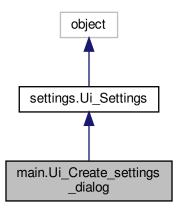
# 7.10 main.Ui\_Create\_settings\_dialog Class Reference

Creates window that provides user with convenient way of changing settings that are stored in sqlite3 db.

Inheritance diagram for main.Ui\_Create\_settings\_dialog:



Collaboration diagram for main.Ui\_Create\_settings\_dialog:



# **Public Member Functions**

• def bind\_functions (self)

- def setupUi (self, Settings)
- · def update\_user\_input\_with\_paths (self)

Reads settings parameters from DB and sets appropriate fields with obtained values.

- · def set default user input with paths (self)
- def read\_settings\_data (self)
- def create or update settings db (self)
- def import students (self)
- · def set\_apply\_restet\_active (self)
- def open simple dialog (self, phrase)

#### **Public Attributes**

· simple diag

#### 7.10.1 Detailed Description

Creates window that provides user with convenient way of changing settings that are stored in sqlite3 db.

Definition at line 1341 of file main.py.

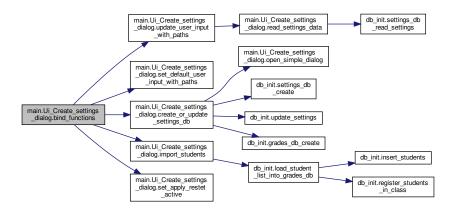
#### 7.10.2 Member Function Documentation

## 7.10.2.1 bind\_functions()

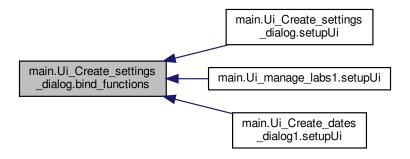
#### Definition at line 1347 of file main.py.

```
1347
         def bind_functions(self):
1348
             self.buttonBox.button(self.buttonBox.Reset).clicked.connect(self.update_user_input_with_paths)
1349
             self.buttonBox.button(self.buttonBox.RestoreDefaults).clicked.connect(self.
      set_default_user_input_with_paths)
1350
            self.buttonBox.button(self.buttonBox.Apply).clicked.connect(self.create_or_update_settings_db)
1351
             self.buttonBox.button(self.buttonBox.Ok).clicked.connect(self.create_or_update_settings_db)
1352
1353
             self.import_stuents_btn.clicked.connect(self.import_students)
1354
1355
             # TODO: make 'personal' events and update only fields that have been changed
1356
             self.input_logisim_path.textChanged.connect(self.set_apply_restet_active)
1357
             self.input local stor.textChanged.connect(self.set apply restet active)
1358
             self.input_rem_stor.textChanged.connect(self.set_apply_restet_active)
             self.input_grader_name.textChanged.connect(self.set_apply_restet_active)
1359
1360
             self.spin year.valueChanged.connect(self.set apply restet active)
1361
             self.semester_comboBox.currentIndexChanged.connect(self.set_apply_restet_active)
             \verb|self.style_checkBox.stateChanged.connect(self.set_apply_restet_active)| \\
1362
1363
             \verb|self.sync_command.textChanged.connect(self.set_apply_restet_active)| \\
1364
             self.input_grades_db.textChanged.connect(self.set_apply_restet_active)
1365
```

Here is the call graph for this function:



Here is the caller graph for this function:



#### 7.10.2.2 create\_or\_update\_settings\_db()

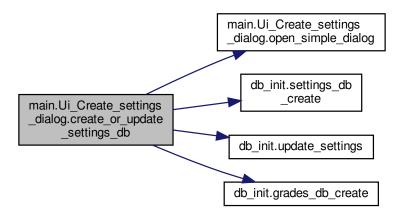
```
def main.Ui_Create_settings_dialog.create_or_update_settings_db ( self \ )
```

# Definition at line 1439 of file main.py.

```
def create_or_update_settings_db(self):
from pathlib import Path
settings_location = str(Path(os.path.expandvars(os.path.expanduser('./settings.sqlite3'))).absolute
())
if not os.path.isfile(settings_location):
```

```
1443
                 if self.open_simple_dialog("Do you want to create settings database ?"):
                     if not settings_db_create(force=True):
1444
1445
                         raise Exception ('Was not able to create SETTINGS db.')
1446
             if len(self.input_local_stor.text()) > 0:
                 if self.input_local_stor.text()[-1] != '/':
1447
1448
                     self.input_local_stor.setText(self.input_local_stor.text() + '/')
1449
             if len(self.input_rem_stor.text()) > 0:
1450
                 if self.input_rem_stor.text()[-1] != '/':
1451
                     self.input_rem_stor.setText(self.input_rem_stor.text() + '/')
1452
             if len(self.input_logisim_path.text()) > 0:
                 if self.input_logisim_path.text()[-1] != '/':
1453
                     self.input_logisim_path.setText(self.input_logisim_path.text() + '/')
1454
1455
1456
1457
             paths = (self.input_logisim_path.text(), self.input_local_stor.text(), self.input_rem_stor.text(),
1458
                      self.input_grades_db.text())
1459
             if os.path.isfile(settings_location):
1460
                 local = (self.input_grader_name.text(), int(self.spin_year.text()),
1461
                         self.semester_comboBox.currentIndex(), self.style_checkBox.checkState(), self.
      sync_command.text())
1462
                 if len(self.input_local_stor.text()) > 0:
                     local_stor = str(Path(os.path.expanduser(os.path.expanduars(self.input_local_stor.text())))
1463
      .absolute())
1464
                     if local_stor[-1] != '/':
                         local_stor += '/'
1465
                     if not os.path.isdir(local stor):
1466
1467
                         os.mkdir(local stor)
                     local_grading_path = local_stor + self.spin_year.text() + '_' +\
1468
1469
                                           str(self.semester_comboBox.currentIndex())
                     if not os.path.isdir(local_grading_path):
1470
1471
                         os.mkdir(local_grading_path)
1472
                 update_settings(paths, local)
1473
1474
1475
             qrades_location = str(Path(os.path.expandvars(os.path.expanduser(self.input_grades_db.text()))).
      absolute())
1476
             if len(self.input_grades_db.text()) > 1 and not os.path.isfile(grades_location):
1477
                 if self.open_simple_dialog("Do you want to create GRADES database ?"):
1478
                     print ('Before grades creation.')
1479
                     if not grades_db_create(grades_location, force=True):
1480
                         raise Exception ('Was not able to create GRADES db.')
1481
1482
             if os.path.isfile(settings_location) and os.path.isfile(grades_location):
1483
                 self.buttonBox.button(self.buttonBox.Apply).setDisabled(True)
1484
                 self.buttonBox.button(self.buttonBox.Apply).repaint()
1485
                 self.buttonBox.button(self.buttonBox.Reset).setDisabled(True)
1486
                 self.buttonBox.button(self.buttonBox.Reset).repaint()
1487
                 if not self.groupBox_user.isEnabled():
1488
                     self.groupBox_user.setEnabled(True)
1489
                 if not self.input_logisim_path.isEnabled():
1490
                     self.input_logisim_path.setEnabled(True)
1491
                     self.label_logisim_path.setEnabled(True)
1492
                 if not self.input_local_stor.isEnabled():
1493
                     self.input_local_stor.setEnabled(True)
1494
                     self.label_local_stor.setEnabled(True)
1495
                 if not self.input_rem_stor.isEnabled():
1496
                     self.input_rem_stor.setEnabled(True)
1497
                     self.label_rem_stor.setEnabled(True)
1498
                 if not self.spin_year.isEnabled():
1499
                     self.spin_year.setEnabled(True)
1500
                 if not self.semester_comboBox.isEnabled():
1501
                     self.semester_comboBox.setEnabled(True)
1502
                 if not self.style_checkBox.isEnabled():
1503
                     self.style_checkBox.setEnabled(True)
1504
                 if not self.input_grader_name.isEnabled():
1505
                     self.input_grader_name.setEnabled(True)
1506
                 if not self.sync_command.isEnabled():
1507
                     self.sync_command.setEnabled(True)
1508
1509
             # if len(self.input_local_stor.text()) > 1:
1510
                   full_path = Path(self.input_local_stor.text()).absolute()
1511
                   if not os.path.exists(full_path) or not os.path.isdir(full_path):
1512
                       os.makedirs(full_path)
1513
```

Here is the call graph for this function:



Here is the caller graph for this function:



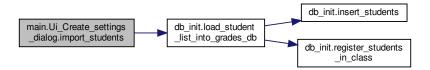
#### 7.10.2.3 import\_students()

```
def main.Ui_Create_settings_dialog.import_students (
```

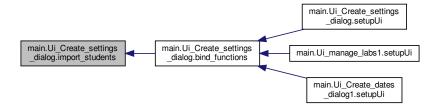
# Definition at line 1518 of file main.py.

```
1518
         def import_students(self):
1519
             self.import_stuents_btn.setEnabled(False)
             stud_file = QFileDialog.getOpenFileName(caption="Select file with students' info", directory='.',
1520
     filter="Text files (*.txt)")
1521
           if len(stud_file[0]) > 3:
                 load_student_list_into_grades_db(self.input_grades_db.text(),
1522
     self.spin_year.value(), self.semester_comboBox.currentIndex(), filename=stud_file[0])
1523
1524
1525
             self.import_stuents_btn.setEnabled(True)
1526
```

Here is the call graph for this function:



Here is the caller graph for this function:

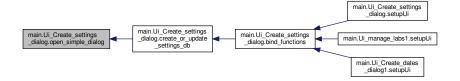


#### 7.10.2.4 open\_simple\_dialog()

#### Definition at line 1543 of file main.py.

```
def open_simple_dialog(self, phrase):
    self.simple_diag = QtWidgets.QDialog()
    dui = SimpleDialog()
1544
1545
1546
               dui.setupUi(self.simple_diag, phrase)
1547
1548
               self.buttonBox.setDisabled(True)
1549
               self.buttonBox.repaint()
1550
1551
               self.simple_diag.setWindowTitle('Settings confirmation')
1552
               self.simple_diag.show()
1553
1554
               result = self.simple_diag.exec_()
1555
1556
               self.buttonBox.setEnabled(True)
1557
1558
               return result
1559
1560
```

Here is the caller graph for this function:



# 7.10.2.5 read\_settings\_data()

```
\label{lem:condition} \mbox{def main.Ui\_Create\_settings\_dialog.read\_settings\_data (} \\ self \mbox{)}
```

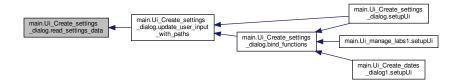
# Definition at line 1428 of file main.py.

```
1428 def read_settings_data(self):
1429 self.buttonBox.button(self.buttonBox.Reset).setEnabled(True)
1430 return settings_db_read_settings()
1431
```

Here is the call graph for this function:



Here is the caller graph for this function:



#### 7.10.2.6 set\_apply\_restet\_active()

```
\label{lem:defmain.Ui_Create_settings_dialog.set_apply_restet_active ( \\ self )
```

#### Definition at line 1531 of file main.py.

```
def set_apply_restet_active(self):
self.buttonBox.button(self.buttonBox.Reset).setEnabled(True)
self.buttonBox.button(self.buttonBox.Apply).setEnabled(True)
self.buttonBox.button(self.buttonBox.Apply).setEnabled(True)
```

Here is the caller graph for this function:



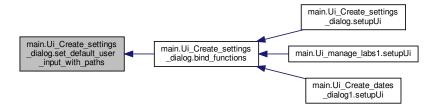
#### 7.10.2.7 set\_default\_user\_input\_with\_paths()

```
def main.Ui_Create_settings_dialog.set_default_user_input_with_paths ( self \ )
```

#### Definition at line 1415 of file main.py.

```
1415
          def set_default_user_input_with_paths(self):
               self.input_logisim_path.setText("~/Downloads/")
1416
               self.input_local_stor.setText("~/Documents/3130_labs/")
self.input_grades_db.setText("~/Documents/3130_labs/grades.sqlite3")
1417
1418
               self.input_rem_stor.setText("")  # impossible to predict
1419
               self.groupBox_user.setEnabled(True)
1420
               \verb|self.buttonBox.button(self.buttonBox.Reset).setEnabled(True)|\\
1421
1422
               self.buttonBox.button(self.buttonBox.Apply).setEnabled(True)
1423
```

Here is the caller graph for this function:

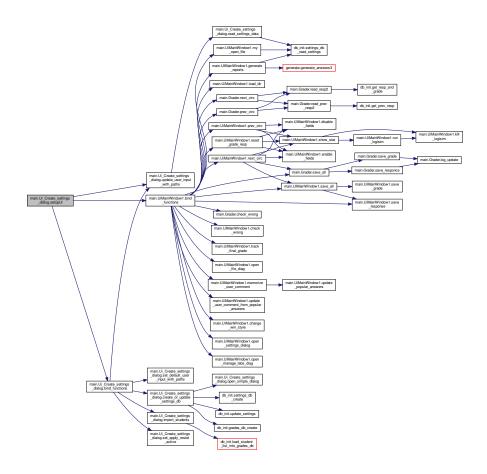


# 7.10.2.8 setupUi()

Definition at line 1370 of file main.py.

```
1370 def setupUi(self, Settings):
1371 super().setupUi(Settings)
1372 self.buttonBox.button(self.buttonBox.Reset).setDisabled(True)
1373 self.buttonBox.button(self.buttonBox.Apply).setDisabled(True)
1374 self.bind_functions()
1375 self.update_user_input_with_paths()
```

Here is the call graph for this function:



# 7.10.2.9 update\_user\_input\_with\_paths()

```
def main.Ui_Create_settings_dialog.update_user_input_with_paths ( self \ )
```

Reads settings parameters from DB and sets appropriate fields with obtained values.

# Warning

dependa on a number of settings obtained from read\_settings\_data :return: Nothing

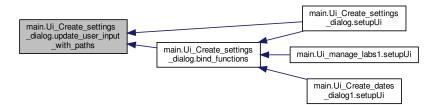
Definition at line 1382 of file main.py.

```
1382
         def update_user_input_with_paths(self):
1383
             paths, local = self.read_settings_data()
1384
             if paths and len(paths) >= 4:
                 self.input_logisim_path.setText(paths[0])
1385
1386
                 self.input_local_stor.setText(paths[1])
1387
                 self.input_rem_stor.setText(paths[2])
1388
                 self.input_grades_db.setText(paths[3])
1389
                 self.groupBox_user.setEnabled(True)
1390
1391
            if local and len(local) >= 4:
1392
                 self.input_grader_name.setText(local[0])
1393
                 self.spin_year.setValue(local[1])
1394
                 self.semester_comboBox.setCurrentIndex(int(local[2]))
1395
                 self.style_checkBox.setChecked(bool(local[3]))
1396
                 self.sync_command.setText(local[4])
1397
1398
             if (paths and len(paths) >= 4 ) and (local and len(local) >= 4):
1399
                 self.spin_year.setEnabled(True)
1400
                 self.semester_comboBox.setEnabled(True)
1401
                 self.style_checkBox.setEnabled(True)
1402
                 self.input_grader_name.setEnabled(True)
1403
                 self.svnc command.setEnabled(True)
             # if (local and len(local) > 5) or len(paths):
1404
1405
                       print ('Obtained more settings than expected. Please check Ui_Create_settings_dialog.')
1406
1407
             self.buttonBox.button(self.buttonBox.Reset).setDisabled(True)
1408
             \verb|self.buttonBox.Apply|| \verb|.setDisabled(True)||
1409
```

Here is the call graph for this function:



Here is the caller graph for this function:



#### 7.10.3 Member Data Documentation

# 7.10.3.1 simple\_diag

 $\verb|main.Ui_Create_settings_dialog.simple_diag|$ 

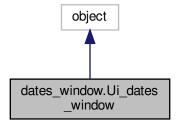
Definition at line 1544 of file main.py.

The documentation for this class was generated from the following file:

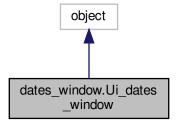
• main.py

# 7.11 dates\_window.Ui\_dates\_window Class Reference

Inheritance diagram for dates\_window.Ui\_dates\_window:



Collaboration diagram for dates\_window.Ui\_dates\_window:



#### **Public Member Functions**

- def setupUi (self, dates window)
- def retranslateUi (self, dates\_window)

#### **Public Attributes**

- buttonBox
- · calendarWidget

# 7.11.1 Detailed Description

Definition at line 11 of file dates\_window.py.

#### 7.11.2 Member Function Documentation

## 7.11.2.1 retranslateUi()

#### Definition at line 29 of file dates\_window.py.

# 7.11.2.2 setupUi()

## Definition at line 12 of file dates\_window.py.

```
12
       def setupUi(self, dates_window):
13
           dates_window.setObjectName("dates_window")
14
           dates_window.resize(251, 314)
           self.buttonBox = QtWidgets.QDialogButtonBox(dates_window)
15
           self.buttonBox.setGeometry(QtCore.QRect(40, 260, 191, 32))
           self.buttonBox.setOrientation(QtCore.Qt.Horizontal)
17
18
           \verb|self.buttonBox.setStandardButtons(QtWidgets.QDialogButtonBox.Cancel|QtWidgets.QDialogButtonBox.Ok)| \\
19
           self.buttonBox.setObjectName("buttonBox")
           self.calendarWidget = QtWidgets.QCalendarWidget(dates_window)
20
21
           self.calendarWidget.setGeometry(QtCore.QRect(10, 10, 224, 232))
22
           self.calendarWidget.setObjectName("calendarWidget")
23
           self.retranslateUi(dates_window)
24
           self.buttonBox.accepted.connect(dates_window.accept)
25
2.6
           self.buttonBox.rejected.connect(dates_window.reject)
27
           QtCore.QMetaObject.connectSlotsByName(dates_window)
2.8
```

# 7.11.3 Member Data Documentation

#### 7.11.3.1 buttonBox

dates\_window.Ui\_dates\_window.buttonBox

Definition at line 15 of file dates\_window.py.

# 7.11.3.2 calendarWidget

dates\_window.Ui\_dates\_window.calendarWidget

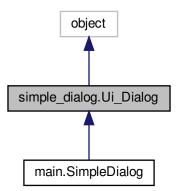
Definition at line 20 of file dates\_window.py.

The documentation for this class was generated from the following file:

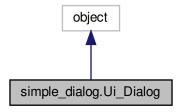
· dates\_window.py

# 7.12 simple\_dialog.Ui\_Dialog Class Reference

Inheritance diagram for simple\_dialog.Ui\_Dialog:



Collaboration diagram for simple\_dialog.Ui\_Dialog:



### **Public Member Functions**

- def setupUi (self, Dialog)
- def retranslateUi (self, Dialog)

# **Public Attributes**

- · verticalLayout
- label\_main\_question
- buttonBox\_simple\_dial

# 7.12.1 Detailed Description

Definition at line 11 of file simple\_dialog.py.

### 7.12.2 Member Function Documentation

# 7.12.2.1 retranslateUi()

```
def simple_dialog.Ui_Dialog.retranslateUi ( self, \\ Dialog )
```

### Definition at line 46 of file simple\_dialog.py.

```
def retranslateUi(self, Dialog):
47
50    __translate = QtCore.QCoreApplication.translate
51    Dialog.setWindowTitle(_translate("Dialog", "Create database ?"))
52    self.label_main_question.setText(_translate("Dialog", "Database will be created. Confirm.."))
53
54
```

### 7.12.2.2 setupUi()

### Definition at line 12 of file simple dialog.py.

```
12
       def setupUi(self, Dialog):
           Dialog.setObjectName("Dialog")
13
          Dialog.resize(328, 76)
14
           icon = QtGui.QIcon()
15
           icon.addPixmap(QtGui.QPixmap("os_linux_1.ico"), QtGui.QIcon.Normal, QtGui.QIcon.Off)
16
17
           Dialog.setWindowIcon(icon)
          {\tt Dialog.setLocale\,(QtCore.QLocale\,(QtCore.QLocale\,.English,\ QtCore.QLocale\,.UnitedStates))}
18
19
           self.verticalLayout = QtWidgets.QVBoxLayout(Dialog)
          self.verticalLayout.setObjectName("verticalLayout")
self.label_main_question = QtWidgets.QLabel(Dialog)
20
2.1
           2.2
23
           sizePolicy.setHorizontalStretch(0)
2.4
           sizePolicy.setVerticalStretch(0)
25
          sizePolicy.setHeightForWidth(self.label_main_question.sizePolicy().hasHeightForWidth())
26
           self.label_main_question.setSizePolicy(sizePolicy)
          self.label_main_question.setAlignment(QtCore.Qt.AlignCenter)
self.label_main_question.setObjectName("label_main_question")
2.7
28
29
           self.verticalLayout.addWidget(self.label_main_question)
30
           \verb|self.buttonBox_simple_dial| = QtWidgets.QDialogButtonBox(Dialog)|
31
           sizePolicy = QtWidgets.QSizePolicy(QtWidgets.QSizePolicy.Minimum, QtWidgets.QSizePolicy.Fixed)
32
           sizePolicy.setHorizontalStretch(0)
33
           sizePolicy.setVerticalStretch(0)
34
           sizePolicy.setHeightForWidth(self.buttonBox_simple_dial.sizePolicy().hasHeightForWidth())
35
           self.buttonBox_simple_dial.setSizePolicy(sizePolicy)
36
           self.buttonBox_simple_dial.setOrientation(QtCore.Qt.Horizontal)
37
           QtWidgets.QDialogButtonBox.Ok)
38
           self.buttonBox_simple_dial.setObjectName("buttonBox_simple_dial")
39
           self.verticalLayout.addWidget(self.buttonBox_simple_dial)
40
41
           self.retranslateUi(Dialog)
           self.buttonBox_simple_dial.accepted.connect(Dialog.accept)
43
           self.buttonBox_simple_dial.rejected.connect(Dialog.reject)
44
           QtCore.QMetaObject.connectSlotsByName(Dialog)
```

### 7.12.3 Member Data Documentation

### 7.12.3.1 buttonBox\_simple\_dial

simple\_dialog.Ui\_Dialog.buttonBox\_simple\_dial

Definition at line 30 of file simple\_dialog.py.

### 7.12.3.2 label\_main\_question

simple\_dialog.Ui\_Dialog.label\_main\_question

Definition at line 21 of file simple\_dialog.py.

# 7.12.3.3 verticalLayout

simple\_dialog.Ui\_Dialog.verticalLayout

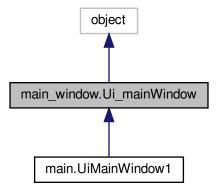
Definition at line 19 of file simple\_dialog.py.

The documentation for this class was generated from the following file:

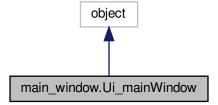
• simple\_dialog.py

# 7.13 main\_window.Ui\_mainWindow Class Reference

Inheritance diagram for main\_window.Ui\_mainWindow:



Collaboration diagram for main\_window.Ui\_mainWindow:



### **Public Member Functions**

- def setupUi (self, mainWindow)
- def retranslateUi (self, mainWindow)

# **Public Attributes**

- · centralwidget
- verticalLayout\_7
- horizontalLayout\_12
- input\_file\_location
- filename\_lineEdit
- but\_file\_open
- but begin
- horizontalLayout\_7
- verticalLayout
- horizontalLayout
- · label\_from
- · dateTimeEdit\_from
- · horizontalLayout\_2
- · label\_submitted
- · dateTimeEdit submitted
- horizontalLayout\_3
- label\_to
- · dateTimeEdit\_to
- verticalLayout\_3
- horizontalLayout\_8
- · input\_current\_id
- · label\_current\_id
- · horizontalLayout\_9
- · input attempt
- label\_attempt
- verticalLayout\_2
- horizontalLayout\_6
- input\_max\_pos\_grade
- label\_max\_pos
- horizontalLayout 4
- input\_subtract
- label\_subtr
- horizontalLayout\_5
- · input\_final\_grade
- label\_final
- verticalLayout\_4
- but\_regrade
- · checkB\_input\_pin\_status
- checkB\_output\_pin\_status
- horizontalLayout\_10
- but\_prev
- · checkB\_wrong
- but\_reset

- but\_next
- popular\_answers
- · tabs for log and resp
- response\_tab
- · verticalLayout\_9
- splitter
- input\_response\_browser
- input\_response\_browser\_user
- tab\_prev\_resp
- verticalLayout\_5
- input\_prev\_response
- tab\_message\_to\_all
- verticalLayout\_8
- input\_message\_to\_all
- log\_tab
- verticalLayout\_6
- input\_log\_browser
- horizontalLayout\_11
- · but\_save\_response
- · check\_autosave
- · manage\_labs\_but
- · set\_style\_checkbox
- · settings\_but
- but\_save\_all
- but\_create\_report
- progressBar

# 7.13.1 Detailed Description

Definition at line 11 of file main\_window.py.

### 7.13.2 Member Function Documentation

### 7.13.2.1 retranslateUi()

Definition at line 351 of file main\_window.py.

```
351
          def retranslateUi(self, mainWindow):
352
355
               _translate = QtCore.QCoreApplication.translate
356
               mainWindow.setWindowTitle(_translate("mainWindow", "CSCI3130 grader"))
357
               self.input_file_location.setPlaceholderText(_translate("mainWindow", "Double click for path
        selection or paste|type path here"))
358
               self.but_file_open.setText(_translate("mainWindow", "Open"))
               self.but_begin.setText(_translate("mainWindow", "Begin"))
self.label_from.setText(_translate("mainWindow", "From"))
359
360
               self.label_submitted.setText(_translate("mainWindow", "Submitted"))
361
362
               self.label_to.setText(_translate("mainWindow", "To"))
               self.label_current_id.setText(_translate("mainWindow", "current id"))
363
               self.label_attempt.setText(_translate("mainWindow", "attempt"))
self.label_max_pos.setText(_translate("mainWindow", "lab max grade"))
self.label_subtr.setText(_translate("mainWindow", "subtract"))
364
365
366
               self.label_final.setText(_translate("mainWindow", "final grade"))
self.but_regrade.setText(_translate("mainWindow", "GRADE"))
self.checkB_input_pin_status.setText(_translate("mainWindow", "Input direction"))
367
368
369
               self.checkB_output_pin_status.setText(_translate("mainWindow", "Output direction"))
370
371
               self.but_prev.setText(_translate("mainWindow", "prev"))
               self.checkB_wrong.setText(_translate("mainWindow", "WRONG"))
372
               self.but_reset.setText(_translate("mainWindow", "Reset"))
self.but_next.setText(_translate("mainWindow", "next"))
373
374
375
               self.input_response_browser.setPlaceholderText(_translate("mainWindow", "Auto answer"))
               \verb|self.input_response_browser_user.setPlaceholderText(\_translate("mainWindow", "User comment"))| \\
376
               \verb|self.tabs_for_log_and_resp.setTabText(self.tabs_for_log_and_resp.indexOf(self.response\_tab)|, \\
377
       _translate("mainWindow", "Response"))
378
               \verb|self.tabs_for_log_and_resp.setTabText(self.tabs_for_log_and_resp.indexOf(self.tab\_prev\_resp)|, \\
       _translate("mainWindow", "Previous Response"))
       self.tabs_for_log_and_resp.setTabText(self.tabs_for_log_and_resp.indexOf(self.tab_message_to_all),
_translate("mainWindow", "Message to all"))
379
               380
       "mainWindow", "Log"))
381
               \verb|self.but_save_response.setText(\_translate("mainWindow", "save responce"))| \\
               self.check_autosave.setText(_translate("mainWindow", "autosave"))
self.manage_labs_but.setText(_translate("mainWindow", "Manage labs"))
382
383
               self.set_style_checkbox.setText(_translate("mainWindow", "style"))
384
               self.settings_but.setText(_translate("mainWindow", "Settings"))
self.but_save_all.setText(_translate("mainWindow", "save all"))
self.but_create_report.setText(_translate("mainWindow", "Create reports"))
385
386
387
388
               self.progressBar.setFormat(_translate("mainWindow", "%v/%m (%p%)"))
389
```

### 7.13.2.2 setupUi()

### Definition at line 12 of file main window.py.

```
def setupUi(self, mainWindow):
13
           mainWindow.setObjectName("mainWindow")
           mainWindow.setEnabled(True)
           mainWindow.resize(888, 584)
15
           icon = QtGui.QIcon()
16
           icon.addPixmap(QtGui.QPixmap("os_linux_1.ico"), QtGui.QIcon.Normal, QtGui.QIcon.Off)
           mainWindow.setWindowIcon(icon)
18
           mainWindow.setAccessibleName("")
19
20
           self.centralwidget = QtWidgets.QWidget(mainWindow)
           self.centralwidget.setObjectName("centralwidget")
21
           self.verticalLayout_7 = QtWidgets.QVBoxLayout(self.centralwidget)
           self.verticalLayout_7.setObjectName("verticalLayout_7")
23
           self.horizontalLayout_12 = QtWidgets.QHBoxLayout()
24
           self.horizontalLayout_12.setObjectName("horizontalLayout_12")
25
           self.input_file_location = BetterLineEdit(self.centralwidget)
26
2.7
           self.input_file_location.setEnabled(False)
           self.input_file_location.setLocale(QtCore.QLocale(QtCore.QLocale.English,
      OtCore.OLocale.UnitedStates))
```

```
29
            self.input_file_location.setText("")
            self.input_file_location.setObjectName("input_file_location")
30
31
            self.horizontalLayout_12.addWidget(self.input_file_location)
32
            self.filename_lineEdit = QtWidgets.QLineEdit(self.centralwidget)
33
            self.filename_lineEdit.setMaximumSize(QtCore.QSize(90, 16777215))
34
           self.filename_lineEdit.setReadOnly(True)
35
            self.filename_lineEdit.setObjectName("filename_lineEdit")
           self.horizontalLayout_12.addWidget(self.filename_lineEdit)
36
37
            self.but_file_open = QtWidgets.QPushButton(self.centralwidget)
           self.but_file_open.setEnabled(False)
39
            self.but_file_open.setLocale(QtCore.QLocale(QtCore.QLocale.English, QtCore.QLocale.UnitedStates))
40
           self.but_file_open.setObjectName("but_file_open")
           self.horizontalLayout_12.addWidget(self.but_file_open)
41
42
           self.but_begin = QtWidgets.QPushButton(self.centralwidget)
43
           self.but_begin.setEnabled(False)
           self.but_begin.setLocale(QtCore.QLocale(QtCore.QLocale.English, QtCore.QLocale.UnitedStates))
45
           self.but_begin.setCheckable(False)
46
           self.but begin.setAutoDefault(False)
47
           self.but_begin.setDefault(False)
           self.but_begin.setFlat(False)
48
           self.but_begin.setObjectName("but_begin")
49
50
           self.horizontalLayout 12.addWidget(self.but begin)
           self.verticalLayout 7.addLayout(self.horizontalLayout 12)
51
52
           self.horizontalLayout_7 = QtWidgets.QHBoxLayout()
           self.horizontalLayout_7.setSpacing(6)
self.horizontalLayout_7.setObjectName("horizontalLayout_7")
self.verticalLayout = QtWidgets.QVBoxLayout()
53
54
55
           self.verticalLayout.setObjectName("verticalLayout")
56
57
           self.horizontalLayout = QtWidgets.QHBoxLayout()
58
           self.horizontalLayout.setObjectName("horizontalLayout")
           self.label_from = QtWidgets.QLabel(self.centralwidget)
59
           self.label_from.setObjectName("label_from")
60
61
            self.horizontalLayout.addWidget(self.label_from)
62
           self.dateTimeEdit_from = QtWidgets.QDateTimeEdit(self.centralwidget)
63
            self.dateTimeEdit_from.setEnabled(True)
64
           self.dateTimeEdit_from.setWrapping(False)
6.5
           self.dateTimeEdit_from.setReadOnly(True)
66
           self.dateTimeEdit_from.setAccelerated(False)
67
            self.dateTimeEdit_from.setCalendarPopup(True)
68
           self.dateTimeEdit_from.setObjectName("dateTimeEdit_from")
69
            self.horizontalLayout.addWidget(self.dateTimeEdit_from)
70
           self.verticalLayout.addLayout(self.horizontalLayout)
71
            self.horizontalLayout_2 = QtWidgets.QHBoxLayout()
72
           self.horizontalLayout_2.setObjectName("horizontalLayout_2")
73
            self.label_submitted = QtWidgets.QLabel(self.centralwidget)
74
           self.label_submitted.setObjectName("label_submitted")
7.5
            self.horizontalLayout_2.addWidget(self.label_submitted)
76
            self.dateTimeEdit_submitted = QtWidgets.QDateTimeEdit(self.centralwidget)
77
            self.dateTimeEdit_submitted.setEnabled(True)
78
            self.dateTimeEdit_submitted.setWrapping(False)
79
            self.dateTimeEdit_submitted.setFrame(True)
80
            self.dateTimeEdit_submitted.setReadOnly(True)
            self.dateTimeEdit_submitted.setKeyboardTracking(False)
81
82
            self.dateTimeEdit_submitted.setCalendarPopup(True)
83
            self.dateTimeEdit_submitted.setObjectName("dateTimeEdit_submitted")
            self.horizontalLayout_2.addWidget(self.dateTimeEdit_submitted)
84
           self.verticalLayout.addLayout(self.horizontalLayout_2)
85
            self.horizontalLayout_3 = QtWidgets.QHBoxLayout()
86
           self.horizontalLayout_3.setObjectName("horizontalLayout_3")
87
88
           self.label_to = QtWidgets.QLabel(self.centralwidget)
           self.label_to.setObjectName("label_to")
           self.horizontalLayout_3.addWidget(self.label_to)
91
           self.dateTimeEdit_to = QtWidgets.QDateTimeEdit(self.centralwidget)
92
           self.dateTimeEdit_to.setEnabled(True)
93
           self.dateTimeEdit_to.setReadOnly(True)
           self.dateTimeEdit_to.setCalendarPopup(True)
           self.dateTimeEdit_to.setObjectName("dateTimeEdit_to")
96
           self.horizontalLayout_3.addWidget(self.dateTimeEdit_to)
           self.verticalLayout.addLayout(self.horizontalLayout_3)
98
           self.horizontalLayout_7.addLayout(self.verticalLayout)
self.verticalLayout_3 = QtWidgets.QVBoxLayout()
99
100
            self.verticalLayout 3.setObjectName("verticalLayout 3")
101
            self.horizontalLayout_8 = QtWidgets.QHBoxLayout()
            self.horizontalLayout_8.setObjectName("horizontalLayout_8")
self.input_current_id = QtWidgets.QLineEdit(self.centralwidget)
102
103
104
             self.input_current_id.setEnabled(False)
            self.input_current_id.setMaximumSize(QtCore.QSize(60, 40))
105
106
            self.input_current_id.setReadOnly(True)
self.input_current_id.setObjectName("input_current_id")
107
108
             self.horizontalLayout_8.addWidget(self.input_current_id)
109
            self.label_current_id = QtWidgets.QLabel(self.centralwidget)
```

```
110
                  self.label_current_id.setObjectName("label_current_id")
                  self.horizontalLayout_8.addWidget(self.label_current_id)
111
112
                  self.verticalLayout_3.addLayout(self.horizontalLayout_8)
113
                  self.horizontalLayout_9 = QtWidgets.QHBoxLayout()
                  self.horizontalLayout_9.setObjectName("horizontalLayout_9")
114
115
                  self.input_attempt = QtWidgets.QLineEdit(self.centralwidget)
                  self.input_attempt.setEnabled(False)
                  self.input_attempt.setMaximumSize(QtCore.QSize(40, 40))
117
118
                  self.input_attempt.setReadOnly(True)
119
                  self.input_attempt.setObjectName("input_attempt")
                  self.horizontalLayout_9.addWidget(self.input_attempt)
                  spacerItem = QtWidgets.QSpacerItem(20, 20, QtWidgets.QSizePolicy.Fixed,
121
         QtWidgets.QSizePolicy.Minimum)
122
                 self.horizontalLayout_9.addItem(spacerItem)
123
                  self.label_attempt = QtWidgets.QLabel(self.centralwidget)
124
                  self.label_attempt.setObjectName("label_attempt")
125
                  self.horizontalLayout_9.addWidget(self.label_attempt)
                 self.verticalLayout_3.addLayout(self.horizontalLayout_9)
126
127
                  spacerItem1 = QtWidgets.QSpacerItem(20, 40, QtWidgets.QSizePolicy.Minimum,
         QtWidgets.QSizePolicy.Fixed)
128
                 self.verticalLayout_3.addItem(spacerItem1)
                 self.horizontalLayout_7.addLayout(self.verticalLayout_3)
129
                  self.verticalLayout_2 = QtWidgets.QVBoxLayout()
130
131
                 self.verticalLayout_2.setObjectName("verticalLayout_2")
                 self.horizontalLayout_6 = QtWidgets.QHBoxLayout()
self.horizontalLayout_6.setObjectName("horizontalLayout_6")
132
133
                  self.input_max_pos_grade = QtWidgets.QLineEdit(self.centralwidget)
134
135
                 self.input_max_pos_grade.setEnabled(False)
                  self.input_max_pos_grade.setMaximumSize(QtCore.QSize(40, 40))
136
                 \verb|self.input_max_pos_grade.setLocale(QtCore.QLocale(QtCore.QLocale.English, and all of the context of the con
137
         OtCore.OLocale.UnitedStates))
138
                 self.input_max_pos_grade.setText("")
139
                  self.input_max_pos_grade.setReadOnly(True)
140
                  self.input_max_pos_grade.setObjectName("input_max_pos_grade")
141
                  self.horizontalLayout_6.addWidget(self.input_max_pos_grade)
142
                  self.label_max_pos = QtWidgets.QLabel(self.centralwidget)
143
                  self.label_max_pos.setEnabled(True)
144
                  \verb|self.label_max_pos.setLocale(QtCore.QLocale(QtCore.QLocale.English, QtCore.QLocale.UnitedStates)|| \\
145
                  self.label_max_pos.setObjectName("label_max_pos")
146
                  self.horizontalLayout_6.addWidget(self.label_max_pos)
147
                  self.verticalLayout_2.addLayout(self.horizontalLayout_6)
148
                  self.horizontalLayout_4 = QtWidgets.QHBoxLayout()
149
                  \verb|self.horizontalLayout_4.setObjectName("horizontalLayout_4")| \\
150
                  self.input_subtract = QtWidgets.QLineEdit(self.centralwidget)
151
                  self.input_subtract.setEnabled(False)
152
                  self.input_subtract.setMaximumSize(QtCore.QSize(40, 40))
153
                  self.input_subtract.setLocale(QtCore.QLocale(QtCore.QLocale.English, QtCore.QLocale.UnitedStates))
154
                  self.input_subtract.setReadOnly(True)
155
                  self.input_subtract.setObjectName("input_subtract")
156
                  self.horizontalLayout_4.addWidget(self.input_subtract)
157
                  self.label_subtr = QtWidgets.QLabel(self.centralwidget)
158
                  \verb|self.label_subtr.setLocale(QtCore.QLocale(QtCore.QLocale.English, QtCore.QLocale.UnitedStates)|| \\
159
                  self.label_subtr.setObjectName("label_subtr")
                  self.horizontalLayout_4.addWidget(self.label_subtr)
160
161
                  self.verticalLayout_2.addLayout(self.horizontalLayout_4)
                  self.horizontalLayout_5 = QtWidgets.QHBoxLayout()
162
                  self.horizontalLayout_5.setObjectName("horizontalLayout_5")
163
                  self.input_final_grade = QtWidgets.QLineEdit(self.centralwidget)
164
                  self.input_final_grade.setEnabled(False)
165
166
                 self.input_final_grade.setMaximumSize(QtCore.QSize(40, 40))
                 self.input_final_grade.setLocale(QtCore.QLocale(QtCore.QLocale.English, QtCore.QLocale.UnitedStates
167
         ))
168
                  self.input_final_grade.setText("")
169
                  self.input_final_grade.setReadOnly(True)
170
                  self.input_final_grade.setObjectName("input_final_grade")
171
                  self.horizontalLayout_5.addWidget(self.input_final_grade)
                  self.label_final = QtWidgets.QLabel(self.centralwidget)
172
173
                  self.label_final.setEnabled(True)
174
                 self.label_final.setLocale(QtCore.QLocale(QtCore.QLocale.English, QtCore.QLocale.UnitedStates))
175
                  self.label_final.setObjectName("label_final")
176
                 self.horizontalLayout_5.addWidget(self.label_final)
177
                  self.verticalLayout 2.addLayout (self.horizontalLayout 5)
178
                 self.horizontalLayout_7.addLayout(self.verticalLayout_2)
                  self.verticalLayout_4 = QtWidgets.QVBoxLayout()
179
                 self.verticalLayout_4.setObjectName("verticalLayout_4")
180
181
                  self.but_regrade = QtWidgets.QPushButton(self.centralwidget)
182
                 self.but_regrade.setEnabled(False)
                  \verb|self.but_regrade.setLocale(QtCore.QLocale(QtCore.QLocale.English, QtCore.QLocale.UnitedStates)||
183
                 self.but_regrade.setObjectName("but_regrade")
184
                  self.verticalLayout_4.addWidget(self.but_regrade)
185
                 self.checkB_input_pin_status = QtWidgets.QCheckBox(self.centralwidget)
186
```

```
187
                       self.checkB_input_pin_status.setEnabled(False)
188
                      \verb|self.checkB_input_pin_status.setLocale(QtCore.QLocale(QtCore.QLocale.English, and the context of the contex
           QtCore.QLocale.UnitedStates))
189
                      self.checkB_input_pin_status.setObjectName("checkB_input_pin_status")
190
                       self.verticalLayout_4.addWidget(self.checkB_input_pin_status)
191
                       self.checkB_output_pin_status = QtWidgets.QCheckBox(self.centralwidget)
                       self.checkB_output_pin_status.setEnabled(False)
193
                      self.checkB_output_pin_status.setLocale(QtCore.QLocale(QtCore.QLocale.English,
           QtCore.QLocale.UnitedStates))
194
                      self.checkB_output_pin_status.setObjectName("checkB_output_pin_status")
195
                       self.verticalLayout_4.addWidget(self.checkB_output_pin_status)
196
                      self.horizontalLayout_7.addLayout(self.verticalLayout_4)
197
                      self.verticalLayout_7.addLayout(self.horizontalLayout_7)
198
                      self.horizontalLayout_10 = QtWidgets.QHBoxLayout()
                      self.horizontalLayout_10.setSpacing(65)
self.horizontalLayout_10.setObjectName("horizontalLayout_10")
199
200
201
                      self.but_prev = QtWidgets.QPushButton(self.centralwidget)
202
                      self.but prev.setEnabled(False)
203
                       self.but_prev.setMinimumSize(QtCore.QSize(60, 30))
                      self.but_prev.setMaximumSize(QtCore.QSize(200, 16777215))
204
205
                       self.but_prev.setLocale(QtCore.QLocale(QtCore.QLocale.English, QtCore.QLocale.UnitedStates))
                      self.but_prev.setObjectName("but_prev")
206
207
                       self.horizontalLayout_10.addWidget(self.but_prev)
208
                      self.checkB_wrong = QtWidgets.QCheckBox(self.centralwidget)
209
                       self.checkB_wrong.setEnabled(False)
                      self.checkB_wrong.setMinimumSize(QtCore.QSize(80, 20))
210
                       self.checkB_wrong.setMaximumSize(QtCore.QSize(75, 16777215))
211
212
                      self.checkB_wrong.setLocale(QtCore.QLocale(QtCore.QLocale.English, QtCore.QLocale.UnitedStates))
213
                       self.checkB_wrong.setObjectName("checkB_wrong")
214
                      self.horizontalLayout_10.addWidget(self.checkB_wrong)
                       self.but_reset = QtWidgets.QPushButton(self.centralwidget)
215
216
                      self.but_reset.setEnabled(False)
217
                       self.but_reset.setMinimumSize(QtCore.QSize(60, 20))
218
                       self.but_reset.setMaximumSize(QtCore.QSize(90, 16777215))
219
                       self.but_reset.setObjectName("but_reset")
220
                       self.horizontalLayout_10.addWidget(self.but_reset)
2.21
                       self.but_next = QtWidgets.QPushButton(self.centralwidget)
222
                       self.but_next.setEnabled(False)
223
                       self.but_next.setMinimumSize(QtCore.QSize(60, 30))
                       self.but_next.setMaximumSize(QtCore.QSize(200, 16777215))
224
225
                       self.but_next.setLocale(QtCore.QLocale(QtCore.QLocale.English, QtCore.QLocale.UnitedStates))
226
                       self.but_next.setObjectName("but_next")
227
                       self.horizontalLayout_10.addWidget(self.but_next)
228
                       self.verticalLayout_7.addLayout(self.horizontalLayout_10)
                       self.popular_answers = QtWidgets.QComboBox(self.centralwidget)
229
230
                       self.popular_answers.setEnabled(False)
231
                       \verb|self.popular_answers.setLocale(QtCore.QLocale.QLocale.English, QtCore.QLocale.UnitedStates)|| \\
232
                       self.popular_answers.setEditable(False)
233
                       self.popular_answers.setCurrentText("")
                       self.popular_answers.setObjectName("popular_answers")
234
235
                       self.popular_answers.addItem("")
236
                       self.popular_answers.setItemText(0, "")
                       self.verticalLayout_7.addWidget(self.popular_answers)
237
238
                       self.tabs_for_log_and_resp = QtWidgets.QTabWidget(self.centralwidget)
239
                       self.tabs_for_log_and_resp.setEnabled(True)
240
                       self.tabs_for_log_and_resp.setMinimumSize(QtCore.QSize(770, 30))
                       self.tabs_for_log_and_resp.setMaximumSize(QtCore.QSize(20000, 3700))
241
242
                       \verb|self.tabs_for_log_and_resp.setLocale(QtCore.QLocale(QtCore.QLocale.English, and the context of the context 
           QtCore.QLocale.UnitedStates))
243
                      self.tabs_for_log_and_resp.setTabShape(QtWidgets.QTabWidget.Rounded)
244
                       self.tabs_for_log_and_resp.setObjectName("tabs_for_log_and_resp")
245
                       self.response_tab = QtWidgets.QWidget()
246
                       self.response_tab.setMinimumSize(QtCore.QSize(0, 180))
2.47
                      self.response_tab.setMaximumSize(QtCore.QSize(16777215, 300))
248
                      self.response_tab.setObjectName("response_tab")
249
                      self.verticalLayout_9 = QtWidgets.QVBoxLayout(self.response_tab)
                      self.verticalLayout_9.setObjectName("verticalLayout_9")
250
251
                      self.splitter = QtWidgets.QSplitter(self.response_tab)
                      sizePolicy = QtWidgets.QSizePolicy(QtWidgets.QSizePolicy.Expanding, QtWidgets.QSizePolicy.Expanding
252
           )
253
                      sizePolicy.setHorizontalStretch(0)
                      sizePolicy.setVerticalStretch(0)
254
255
                      sizePolicy.setHeightForWidth(self.splitter.sizePolicy().hasHeightForWidth())
256
                      self.splitter.setSizePolicy(sizePolicy)
257
                      self.splitter.setOrientation(QtCore.Qt.Vertical)
258
                       self.splitter.setObjectName("splitter")
                      self.input_response_browser = QtWidgets.QPlainTextEdit(self.splitter)
259
260
                       self.input_response_browser.setEnabled(True)
                      self.input_response_browser.setMinimumSize(QtCore.QSize(0, 30))
261
2.62
                       self.input_response_browser.setReadOnly(True)
                      self.input_response_browser.setTextInteractionFlags(QtCore.Qt.TextSelectableByKeyboard)
263
```

```
QtCore.Qt.TextSelectableByMouse)
            self.input_response_browser.setObjectName("input_response_browser")
264
            self.input_response_browser_user = BetterPlainTextEdit(self.splitter)
265
            self.input_response_browser_user.setEnabled(False)
266
267
            self.input_response_browser_user.setMinimumSize(QtCore.QSize(0, 30))
268
            self.input_response_browser_user.setObjectName("input_response_browser_user")
269
            self.verticalLayout_9.addWidget(self.splitter)
270
            self.tabs_for_log_and_resp.addTab(self.response_tab, "")
271
            self.tab_prev_resp = QtWidgets.QWidget()
272
            self.tab_prev_resp.setObjectName("tab_prev_resp")
            self.verticalLayout_5 = QtWidgets.QVBoxLayout(self.tab_prev_resp)
273
            self.verticalLayout_5.setObjectName("verticalLayout_5")
274
275
            self.input_prev_response = QtWidgets.QPlainTextEdit(self.tab_prev_resp)
276
            self.input_prev_response.setEnabled(True)
277
            self.input_prev_response.setTextInteractionFlags(QtCore.Qt.TextSelectableByKeyboard|
      QtCore.Qt.TextSelectableByMouse)
278
            self.input_prev_response.setObjectName("input_prev_response")
            self.verticalLayout_5.addWidget(self.input_prev_response)
279
280
            self.tabs_for_log_and_resp.addTab(self.tab_prev_resp,
            self.tab_message_to_all = QtWidgets.QWidget()
281
            self.tab_message_to_all.setObjectName("tab_message_to_all")
282
283
            self.verticalLayout_8 = QtWidgets.QVBoxLayout(self.tab_message_to_all)
            self.verticalLayout_8.setObjectName("verticalLayout_8")
284
285
            self.input message to all = OtWidgets.OPlainTextEdit(self.tab message to all)
286
            \verb|sizePolicy| = QtWidgets.QSizePolicy| (QtWidgets.QSizePolicy.Expanding, QtWidgets.QSizePolicy.Expanding)| \\
287
            sizePolicy.setHorizontalStretch(0)
            sizePolicy.setVerticalStretch(0)
288
289
            \verb|sizePolicy.setHeightForWidth(self.input_message_to_all.sizePolicy().hasHeightForWidth())| \\
290
            self.input_message_to_all.setSizePolicy(sizePolicy)
            self.input_message_to_all.setObjectName("input_message_to_all")
291
292
            self.verticalLayout_8.addWidget(self.input_message_to_all)
            self.tabs_for_log_and_resp.addTab(self.tab_message_to_all, "")
293
            self.log_tab = QtWidgets.QWidget()
2.94
            self.log_tab.setObjectName("log_tab")
295
            self.verticalLayout_6 = QtWidgets.QVBoxLayout(self.log_tab)
296
2.97
            self.verticalLayout_6.setObjectName("verticalLayout_6")
298
            self.input_log_browser = QtWidgets.QTextBrowser(self.log_tab)
299
            \verb|self.input_log_browser.setLocale(QtCore.QLocale(QtCore.QLocale.English, QtCore.QLocale.UnitedStates)| \\
      ))
300
            self.input_log_browser.setObjectName("input_log_browser")
301
            self.verticalLayout_6.addWidget(self.input_log_browser)
302
            self.tabs_for_log_and_resp.addTab(self.log_tab, "")
303
            self.verticalLayout_7.addWidget(self.tabs_for_log_and_resp)
304
            self.horizontalLayout_11 = QtWidgets.QHBoxLayout()
305
            self.horizontalLayout_11.setObjectName("horizontalLayout_11")
306
            self.but_save_response = QtWidgets.QPushButton(self.centralwidget)
307
            self.but_save_response.setEnabled(False)
308
            self.but_save_response.setLocale(QtCore.QLocale(QtCore.QLocale.English, QtCore.QLocale.UnitedStates
      ))
309
            self.but_save_response.setObjectName("but_save_response")
310
            self.horizontalLayout_11.addWidget(self.but_save_response)
            self.check_autosave = QtWidgets.QCheckBox(self.centralwidget)
311
312
            self.check_autosave.setEnabled(False)
313
            self.check_autosave.setObjectName("check_autosave")
314
            self.horizontalLayout_11.addWidget(self.check_autosave)
            self.manage_labs_but = QtWidgets.QPushButton(self.centralwidget)
315
316
            self.manage_labs_but.setEnabled(False)
317
            self.manage_labs_but.setObjectName("manage_labs_but")
318
            self.horizontalLayout_11.addWidget(self.manage_labs_but)
319
            self.set_style_checkbox = QtWidgets.QCheckBox(self.centralwidget)
320
            self.set_style_checkbox.setObjectName("set_style_checkbox")
321
            self.horizontalLayout_11.addWidget(self.set_style_checkbox)
322
            self.settings_but = QtWidgets.QToolButton(self.centralwidget)
323
            self.settings_but.setEnabled(True)
324
            self.settings_but.setObjectName("settings_but")
325
            self.horizontalLayout_11.addWidget(self.settings_but)
326
            self.but_save_all = QtWidgets.QPushButton(self.centralwidget)
327
            self.but_save_all.setEnabled(False)
328
            self.but_save_all.setLocale(QtCore.QLocale(QtCore.QLocale.English, QtCore.QLocale.UnitedStates))
329
            self.but_save_all.setObjectName("but_save_all")
            self.horizontalLayout_11.addWidget(self.but_save_all)
330
331
            self.but create report = OtWidgets.OPushButton(self.centralwidget)
332
            self.but create report.setEnabled(False)
333
            self.but_create_report.setObjectName("but_create_report")
            self.horizontalLayout_11.addWidget(self.but_create_report)
334
            \verb|self.verticalLayout_7.addLayout(self.horizontalLayout_11)| \\
335
336
            self.progressBar = QtWidgets.QProgressBar(self.centralwidget)
337
            self.progressBar.setEnabled(True)
            \verb|self.progressBar.setAutoFillBackground(False)|\\
338
339
            self.progressBar.setLocale(QtCore.QLocale(QtCore.QLocale.English, QtCore.QLocale.UnitedStates))
```

```
340
            self.progressBar.setProperty("value", 0)
341
            self.progressBar.setTextVisible(True)
342
            self.progressBar.setInvertedAppearance(False)
343
            self.progressBar.setObjectName("progressBar")
344
            self.verticalLayout_7.addWidget(self.progressBar)
345
           mainWindow.setCentralWidget(self.centralwidget)
347
           self.retranslateUi(mainWindow)
348
            self.tabs_for_log_and_resp.setCurrentIndex(0)
349
            QtCore.QMetaObject.connectSlotsByName(mainWindow)
```

### 7.13.3 Member Data Documentation

### 7.13.3.1 but\_begin

main\_window.Ui\_mainWindow.but\_begin

Definition at line 42 of file main\_window.py.

### 7.13.3.2 but\_create\_report

main\_window.Ui\_mainWindow.but\_create\_report

Definition at line 331 of file main\_window.py.

### 7.13.3.3 but\_file\_open

main\_window.Ui\_mainWindow.but\_file\_open

Definition at line 37 of file main\_window.py.

### 7.13.3.4 but\_next

main\_window.Ui\_mainWindow.but\_next

Definition at line 221 of file main\_window.py.

# 7.13.3.5 but\_prev

main\_window.Ui\_mainWindow.but\_prev

Definition at line 201 of file main\_window.py.

### 7.13.3.6 but\_regrade

main\_window.Ui\_mainWindow.but\_regrade

Definition at line 181 of file main\_window.py.

### 7.13.3.7 but\_reset

main\_window.Ui\_mainWindow.but\_reset

Definition at line 215 of file main\_window.py.

### 7.13.3.8 but\_save\_all

main\_window.Ui\_mainWindow.but\_save\_all

Definition at line 326 of file main\_window.py.

### 7.13.3.9 but\_save\_response

main\_window.Ui\_mainWindow.but\_save\_response

Definition at line 306 of file main\_window.py.

# 7.13.3.10 centralwidget

main\_window.Ui\_mainWindow.centralwidget

Definition at line 20 of file main\_window.py.

7.13.3.11 check\_autosave

main\_window.Ui\_mainWindow.check\_autosave

Definition at line 311 of file main\_window.py.

7.13.3.12 checkB\_input\_pin\_status

main\_window.Ui\_mainWindow.checkB\_input\_pin\_status

Definition at line 186 of file main\_window.py.

7.13.3.13 checkB\_output\_pin\_status

main\_window.Ui\_mainWindow.checkB\_output\_pin\_status

Definition at line 191 of file main\_window.py.

7.13.3.14 checkB\_wrong

 $\verb|main_window.Ui_mainWindow.checkb_wrong|\\$ 

Definition at line 208 of file main\_window.py.

7.13.3.15 dateTimeEdit\_from

main\_window.Ui\_mainWindow.dateTimeEdit\_from

Definition at line 62 of file main\_window.py.

7.13.3.16 dateTimeEdit\_submitted

 $\verb|main_window.Ui_main@indow.dateTimeEdit_submitted|\\$ 

Definition at line 76 of file main\_window.py.

# 7.13.3.17 dateTimeEdit\_to

main\_window.Ui\_mainWindow.dateTimeEdit\_to

Definition at line 91 of file main\_window.py.

# 7.13.3.18 filename\_lineEdit

main\_window.Ui\_mainWindow.filename\_lineEdit

Definition at line 32 of file main\_window.py.

### 7.13.3.19 horizontalLayout

main\_window.Ui\_mainWindow.horizontalLayout

Definition at line 57 of file main\_window.py.

# 7.13.3.20 horizontalLayout\_10

main\_window.Ui\_mainWindow.horizontalLayout\_10

Definition at line 198 of file main\_window.py.

### 7.13.3.21 horizontalLayout\_11

main\_window.Ui\_mainWindow.horizontalLayout\_11

Definition at line 304 of file main\_window.py.

# 7.13.3.22 horizontalLayout\_12

 $\verb|main_window.Ui_mainWindow.horizontalLayout_12|\\$ 

Definition at line 24 of file main\_window.py.

7.13.3.23 horizontalLayout\_2

main\_window.Ui\_mainWindow.horizontalLayout\_2

Definition at line 71 of file main\_window.py.

7.13.3.24 horizontalLayout\_3

main\_window.Ui\_mainWindow.horizontalLayout\_3

Definition at line 86 of file main\_window.py.

7.13.3.25 horizontalLayout\_4

 $\verb|main_window.Ui_mainWindow.horizontalLayout_4|$ 

Definition at line 148 of file main\_window.py.

7.13.3.26 horizontalLayout\_5

main\_window.Ui\_mainWindow.horizontalLayout\_5

Definition at line 162 of file main\_window.py.

7.13.3.27 horizontalLayout\_6

main\_window.Ui\_mainWindow.horizontalLayout\_6

Definition at line 132 of file main\_window.py.

7.13.3.28 horizontalLayout\_7

 $\verb|main_window.Ui_mainWindow.horizontalLayout_7|\\$ 

Definition at line 52 of file main\_window.py.

# 7.13.3.29 horizontalLayout\_8 main\_window.Ui\_mainWindow.horizontalLayout\_8 Definition at line 101 of file main\_window.py. 7.13.3.30 horizontalLayout\_9 main\_window.Ui\_mainWindow.horizontalLayout\_9 Definition at line 113 of file main\_window.py. 7.13.3.31 input\_attempt main\_window.Ui\_mainWindow.input\_attempt Definition at line 115 of file main\_window.py. 7.13.3.32 input\_current\_id main\_window.Ui\_mainWindow.input\_current\_id Definition at line 103 of file main\_window.py. 7.13.3.33 input\_file\_location main\_window.Ui\_mainWindow.input\_file\_location Definition at line 26 of file main\_window.py.

Definition at line 164 of file main\_window.py.

main\_window.Ui\_mainWindow.input\_final\_grade

7.13.3.34 input\_final\_grade

7.13.3.35 input\_log\_browser

main\_window.Ui\_mainWindow.input\_log\_browser

Definition at line 298 of file main\_window.py.

7.13.3.36 input\_max\_pos\_grade

main\_window.Ui\_mainWindow.input\_max\_pos\_grade

Definition at line 134 of file main\_window.py.

7.13.3.37 input\_message\_to\_all

main\_window.Ui\_mainWindow.input\_message\_to\_all

Definition at line 285 of file main\_window.py.

7.13.3.38 input\_prev\_response

main\_window.Ui\_mainWindow.input\_prev\_response

Definition at line 275 of file main\_window.py.

7.13.3.39 input\_response\_browser

main\_window.Ui\_mainWindow.input\_response\_browser

Definition at line 259 of file main\_window.py.

7.13.3.40 input\_response\_browser\_user

main\_window.Ui\_mainWindow.input\_response\_browser\_user

Definition at line 265 of file main\_window.py.

# 7.13.3.41 input\_subtract

main\_window.Ui\_mainWindow.input\_subtract

Definition at line 150 of file main\_window.py.

# 7.13.3.42 label\_attempt

main\_window.Ui\_mainWindow.label\_attempt

Definition at line 123 of file main\_window.py.

### 7.13.3.43 label\_current\_id

main\_window.Ui\_mainWindow.label\_current\_id

Definition at line 109 of file main\_window.py.

### 7.13.3.44 label\_final

main\_window.Ui\_mainWindow.label\_final

Definition at line 172 of file main\_window.py.

### 7.13.3.45 label\_from

main\_window.Ui\_mainWindow.label\_from

Definition at line 59 of file main\_window.py.

# 7.13.3.46 label\_max\_pos

main\_window.Ui\_mainWindow.label\_max\_pos

Definition at line 142 of file main\_window.py.

7.13.3.47 label\_submitted

main\_window.Ui\_mainWindow.label\_submitted

Definition at line 73 of file main\_window.py.

7.13.3.48 label\_subtr

main\_window.Ui\_mainWindow.label\_subtr

Definition at line 157 of file main\_window.py.

7.13.3.49 label\_to

main\_window.Ui\_mainWindow.label\_to

Definition at line 88 of file main\_window.py.

7.13.3.50 log\_tab

main\_window.Ui\_mainWindow.log\_tab

Definition at line 294 of file main\_window.py.

7.13.3.51 manage\_labs\_but

main\_window.Ui\_mainWindow.manage\_labs\_but

Definition at line 315 of file main\_window.py.

7.13.3.52 popular\_answers

 $\verb|main_window.Ui_mainWindow.popular_answers| \\$ 

Definition at line 229 of file main\_window.py.

# 7.13.3.53 progressBar

main\_window.Ui\_mainWindow.progressBar

Definition at line 336 of file main\_window.py.

7.13.3.54 response\_tab

main\_window.Ui\_mainWindow.response\_tab

Definition at line 245 of file main\_window.py.

7.13.3.55 set\_style\_checkbox

main\_window.Ui\_mainWindow.set\_style\_checkbox

Definition at line 319 of file main\_window.py.

7.13.3.56 settings\_but

main\_window.Ui\_mainWindow.settings\_but

Definition at line 322 of file main\_window.py.

7.13.3.57 splitter

main\_window.Ui\_mainWindow.splitter

Definition at line 251 of file main\_window.py.

7.13.3.58 tab\_message\_to\_all

main\_window.Ui\_mainWindow.tab\_message\_to\_all

Definition at line 281 of file main\_window.py.

```
7.13.3.59 tab_prev_resp
main_window.Ui_mainWindow.tab_prev_resp
Definition at line 271 of file main_window.py.
7.13.3.60 tabs_for_log_and_resp
main_window.Ui_mainWindow.tabs_for_log_and_resp
Definition at line 238 of file main_window.py.
7.13.3.61 verticalLayout
main_window.Ui_mainWindow.verticalLayout
Definition at line 55 of file main_window.py.
7.13.3.62 verticalLayout_2
main_window.Ui_mainWindow.verticalLayout_2
Definition at line 130 of file main_window.py.
7.13.3.63 verticalLayout_3
main_window.Ui_mainWindow.verticalLayout_3
Definition at line 99 of file main_window.py.
```

# 7.13.3.64 verticalLayout\_4

 $\verb|main_window.Ui_mainWindow.verticalLayout_4|$ 

Definition at line 179 of file main\_window.py.

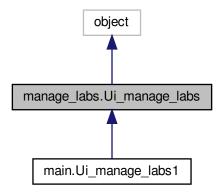
```
7.13.3.65 verticalLayout_5
main_window.Ui_mainWindow.verticalLayout_5
Definition at line 273 of file main_window.py.
7.13.3.66 verticalLayout_6
main_window.Ui_mainWindow.verticalLayout_6
Definition at line 296 of file main_window.py.
7.13.3.67 verticalLayout_7
main_window.Ui_mainWindow.verticalLayout_7
Definition at line 22 of file main_window.py.
7.13.3.68 verticalLayout_8
main_window.Ui_mainWindow.verticalLayout_8
Definition at line 283 of file main_window.py.
7.13.3.69 verticalLayout_9
main_window.Ui_mainWindow.verticalLayout_9
Definition at line 249 of file main_window.py.
The documentation for this class was generated from the following file:
```

main\_window.py

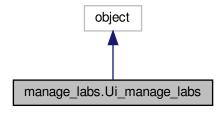
Generated by Doxygen

# 7.14 manage\_labs.Ui\_manage\_labs Class Reference

Inheritance diagram for manage\_labs.Ui\_manage\_labs:



Collaboration diagram for manage\_labs.Ui\_manage\_labs:



# **Public Member Functions**

- def setupUi (self, manage labs)
- def retranslateUi (self, manage\_labs)

# **Public Attributes**

- verticalLayout
- · horizontalLayout

- labs\_select\_comboBox
- sync\_but
- import\_but
- create\_due\_dates\_but
- export\_but
- status\_bar

# 7.14.1 Detailed Description

Definition at line 11 of file manage\_labs.py.

# 7.14.2 Member Function Documentation

### 7.14.2.1 retranslateUi()

Definition at line 47 of file manage\_labs.py.

```
def retranslateUi(self, manage_labs):

    _translate = QtCore.QCoreApplication.translate
    manage_labs.setWindowTitle(_translate("manage_labs", "Manage labs"))
    self.sync_but.setText(_translate("manage_labs", "Sync to local storage"))
    self.import_but.setText(_translate("manage_labs", "import labs"))
    self.create_due_dates_but.setText(_translate("manage_labs", "Create due dates"))
    self.export_but.setText(_translate("manage_labs", "Export pdfs"))
```

### 7.14.2.2 setupUi()

Definition at line 12 of file manage labs.py.

```
12
       def setupUi(self, manage_labs):
           manage_labs.setObjectName("manage_labs")
           manage_labs.resize(753, 90)
           manage_labs.setWindowFilePath("")
           self.verticalLayout = QtWidgets.QVBoxLayout(manage_labs)
           self.verticalLayout.setObjectName("verticalLayout")
           self.horizontalLayout = QtWidgets.QHBoxLayout()
           self.horizontalLayout.setObjectName("horizontalLayout")
19
           self.labs_select_comboBox = QtWidgets.QComboBox(manage_labs)
21
           self.labs_select_comboBox.setEnabled(False)
           self.labs_select_comboBox.setObjectName("labs_select_comboBox")
23
           self.horizontalLayout.addWidget(self.labs_select_comboBox)
24
           self.sync_but = QtWidgets.QPushButton(manage_labs)
           self.sync_but.setObjectName("sync_but")
26
           self.horizontalLayout.addWidget(self.sync_but)
           self.import_but = QtWidgets.QPushButton(manage_labs)
28
           self.import_but.setEnabled(False)
           self.import_but.setObjectName("import_but")
29
30
           self.horizontalLayout.addWidget(self.import_but)
31
           self.create_due_dates_but = QtWidgets.QPushButton(manage_labs)
32
           self.create_due_dates_but.setEnabled(False)
33
           self.create_due_dates_but.setObjectName("create_due_dates_but")
34
           self.horizontalLayout.addWidget(self.create_due_dates_but)
35
           self.export_but = QtWidgets.QPushButton(manage_labs)
           self.export_but.setEnabled(False)
36
           self.export_but.setObjectName("export_but")
37
38
           self.horizontalLayout.addWidget(self.export_but)
39
           self.verticalLayout.addLayout(self.horizontalLayout)
40
           self.status_bar = QtWidgets.QLineEdit(manage_labs)
41
           self.status_bar.setObjectName("status bar")
42
           self.verticalLayout.addWidget(self.status_bar)
43
           self.retranslateUi(manage_labs)
44
4.5
           QtCore.QMetaObject.connectSlotsByName(manage_labs)
46
```

### 7.14.3 Member Data Documentation

### 7.14.3.1 create due dates but

manage\_labs.Ui\_manage\_labs.create\_due\_dates\_but

Definition at line 31 of file manage\_labs.py.

### 7.14.3.2 export\_but

manage\_labs.Ui\_manage\_labs.export\_but

Definition at line 35 of file manage\_labs.py.

# 7.14.3.3 horizontalLayout

```
manage_labs.Ui_manage_labs.horizontalLayout
```

Definition at line 18 of file manage\_labs.py.

# 7.14.3.4 import\_but

```
manage_labs.Ui_manage_labs.import_but
```

Definition at line 27 of file manage\_labs.py.

### 7.14.3.5 labs\_select\_comboBox

```
manage_labs.Ui_manage_labs.labs_select_comboBox
```

Definition at line 20 of file manage\_labs.py.

### 7.14.3.6 status\_bar

```
manage_labs.Ui_manage_labs.status_bar
```

Definition at line 40 of file manage\_labs.py.

# 7.14.3.7 sync\_but

```
manage_labs.Ui_manage_labs.sync_but
```

Definition at line 24 of file manage\_labs.py.

# 7.14.3.8 verticalLayout

```
manage_labs.Ui_manage_labs.verticalLayout
```

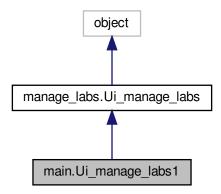
Definition at line 16 of file manage\_labs.py.

The documentation for this class was generated from the following file:

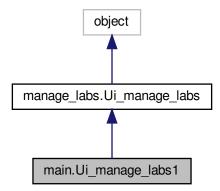
manage\_labs.py

# 7.15 main.Ui\_manage\_labs1 Class Reference

Inheritance diagram for main.Ui\_manage\_labs1:



Collaboration diagram for main.Ui\_manage\_labs1:



# **Public Member Functions**

- def bind\_functions (self)
- def setupUi (self, manage\_labs)
- def set\_local\_vars (self)

- def update\_status\_bar (self, force=False)
- def sync\_files (self)
- def scan\_for\_labs (self)
- def import\_lab (self)
- def check\_for\_due\_dates (self, dir)
- def open\_dates\_dialog (self)
- def due\_date\_creator (self, due\_location, due\_dates)
- def export\_pdfs (self)

### **Public Attributes**

- pdf files len
- · main lab path
- · cal\_window

### Static Public Attributes

- srv\_sync\_path = None
- selected\_path = None
- selected\_lab\_name = None
- zip\_files\_len = None

# 7.15.1 Detailed Description

Definition at line 1574 of file main.py.

### 7.15.2 Member Function Documentation

# 7.15.2.1 bind\_functions()

```
\label{lem:defmain.Ui_manage_labs1.bind_functions} \mbox{ (} \\ self \mbox{ )}
```

### Definition at line 1580 of file main.py.

```
def bind_functions(self):

self.labs_select_comboBox.currentIndexChanged.connect(self.update_status_bar)

self.import_but.clicked.connect(self.import_lab)

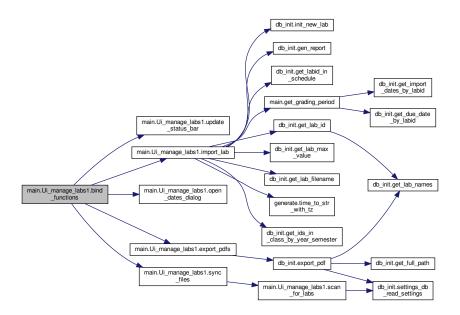
self.create_due_dates_but.clicked.connect(self.open_dates_dialog)

# self.sync_but.clicked.connect(lambda i: self.sync_but.setDisabled(True))

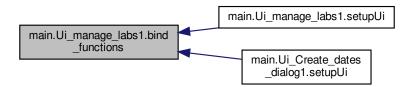
self.sync_but.clicked.connect(self.sync_files)

self.export_but.clicked.connect(self.export_pdfs)
```

Here is the call graph for this function:



Here is the caller graph for this function:



# 7.15.2.2 check\_for\_due\_dates()

### Definition at line 1818 of file main.py.

```
1818     def check_for_due_dates(self, dir):
1819         return sorted([f for f in os.listdir(dir) if 'due_' in f])
1820
1821
```

# 7.15.2.3 due\_date\_creator()

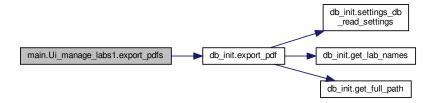
# Definition at line 1856 of file main.py.

# 7.15.2.4 export\_pdfs()

### Definition at line 1865 of file main.py.

```
1865 def export_pdfs(self):
1866 self.export_but.setDisabled(True)
1867 self.export_but.setText('Exporting..')
1868 self.export_but.repaint()
1869 export_pdf()
1870 self.export_but.setText('Export pdfs')
1871 self.export_but.setEnabled(True)
1872
1873
```

Here is the call graph for this function:



Here is the caller graph for this function:



### 7.15.2.5 import\_lab()

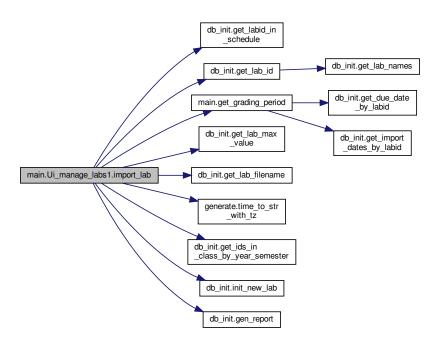
### Definition at line 1664 of file main.py.

```
1664
         def import_lab(self):
1665
             if self.selected_path:
1666
                 self.import_but.setDisabled(True)
1667
                 self.import_but.setText('Importing..')
1668
                 self.import_but.repaint()
1669
1670
                 # due_file = self.check_for_due_dates(self.selected_path)
1671
                 if False:
1672
                 # if len(due_file) < 4:</pre>
1673
                     self.status_bar.setText('Create due dates !')
                     self.import_but.setText('Import labs')
1674
1675
                     self.import_but.setEnabled(True)
1676
                     return False
1677
                 else:
1678
                     from shutil import copy2 as cp2
1679
                     zip_files = [f for f in os.listdir(self.selected_path) if 'zip' in f]
                     real_zip_files_rev = sorted([f for f in zip_files if os.path.isfile(os.path.join(self.
1680
      selected_path, f))], reverse=True)
1681
1682
                     year, semester = self.main_lab_path.split('/')[-1].split('_')
1683
                     ltype, _, lab_num = self.selected_lab_name.split('_'
1684
                     lid = get_labid_in_schedule(get_lab_id(ltype, int(lab_num)),
       year, semester)
1685
                     if lid is None:
                         self.status_bar.setText('Create due dates ! Lab is not initialised in lab_schedule')
1686
1687
                         self.import_but.setText('Import labs')
1688
                         self.import_but.setEnabled(True)
1689
                          return False
1690
                     current_check, prev_due, next_due, current_timestamp =
      get_grading_period(lid)
1691
1692
                     if current_check > 4:
1693
                         self.status_bar.setText('This lab has no more resubmissions (graded 4 times).')
1694
                         self.import_but.setText('Import labs')
1695
                         self.import_but.setEnabled(True)
1696
                         return False
1697
1698
                     if current timestamp < next due:
1699
                          # we cannot grade before the due date
                         self.status_bar.setText('Current date is less than next due date. It is too early to
1700
       import.')
1701
                         self.import_but.setText('Import labs')
1702
                         self.import_but.setEnabled(True)
1703
                         return False
1704
1705
```

```
1706
1707
                     penalty_mess = ''
1708
                      if current_check == 1:
1709
                         penalty_mess = '100% - this is your max point(no resubmissions)'
1710
                      elif current_check == 2:
1711
                         penalty_mess = '90% - first resubmission'
1712
                     elif current_check == 3:
1713
                         penalty_mess = '70% - second resubmission'
1714
                     elif current_check == 4:
                         penalty_mess = '50% - third resubmission'
1715
1716
1717
                     lab_type, _, lab_num = self.selected_lab_name.split('_')
1718
                      lab_corr_name = lab_type[0] + 'LA' + lab_num
1719
                     max_points = get_lab_max_value(lab_corr_name)
1720
                     lab_filename = get_lab_filename(lab_corr_name)
1721
1722
                      # temporary solution. path should be stored as local var
                     paths_to_grading_dir = self.main_lab_path + '/' + self.selected_lab_name + '_' + str(
1723
      current_check) + '/
1724
1725
                      # proc time = datetime.utcfromtimestamp(current timestamp).strftime('%Y-%m-%d %H:%M:%S')
1726
                     proc_time = time_to_str_with_tz(current_timestamp)
1727
1728
                      # File manipulations goes below:
1729
                     if not os.path.isdir(paths_to_grading_dir):
1730
1731
                         os.makedirs(paths_to_grading_dir)
1732
                      cur_year, cur_sem = paths_to_grading_dir.split('/')[-3].split('_')
1733
1734
                      id_to_classId = get_ids_in_class_by_year_semester(cur_year
      , cur_sem)[0]
1735
                      imported_files_counter = 0
1736
1737
                      selected_files = []
                      for file in real_zip_files_rev:
1738
                         parts = file.split('.')[0].split('-')
1739
                          if int(parts[2]) > prev_due and int(parts[2]) <= next_due:</pre>
1740
1741
                              if len(selected_files) == 0:
1742
                                  selected_files.append(file)
                              elif selected_files[-1].split('.')[0].split('-')[0] != parts[0]:
1743
1744
                                  selected_files.append(file)
1745
1746
                      for file in reversed(selected_files):
1747
                          zipped_file = zipfile.ZipFile(self.selected_path + file)
1748
                          extraction_dir = paths_to_grading_dir + file.split('.')[0]
1749
1750
                             zipped_file.extractall(paths_to_grading_dir + file.split('.')[0])
1751
                          except Exception as e:
1752
                             print(self.selected_path + file)
1753
                              print(e)
1754
                          finally:
1755
                              zipped_file.close()
1756
                          parts = file.split('.')[0].split('-')
1757
                          subm_int = int(extraction_dir.split('-')[-1])
1758
                          # subm_time =
       \texttt{datetime.utcfromtimestamp(subm\_int).replace(tzinfo=tz.tzutc()).astimezone(tz.tzlocal()).strftime('\$Y-\$m-\$d~\$H:\$M:\$S')}
1759
                         subm_time = time_to_str_with_tz(subm_int)
1760
                          # check for required files
1761
                          if not lab_filename[0] or os.path.isfile(extraction_dir + '/' + lab_filename[0]):
                              lab_responce = 'I did not find any errors. Good job !'
1762
1763
                              cur_grade = max_points
1764
1765
                              lab_responce = 'File "' + lab_filename[0] +'" was not found.\nThese files were
       found: ' +\
1766
                                             " ".join(os.listdir(extraction_dir))
1767
                              cur_grade = 0
1768
1769
                          # This check is for a case when you graded the lab and trying to import it again.
1770
                          # No existing files should be wiped
1771
                          if not os.path.isfile(extraction_dir+'/penalty.txt'):
1772
                              with open(extraction_dir+'/penalty.txt', 'w') as f:
1773
                                  f.write(penalty_mess)
1774
                          if not os.path.isfile(extraction_dir + '/grade.txt'):
1775
1776
                              with open(extraction_dir + '/grade.txt', 'w') as f:
1777
                                  f.write(str(cur_grade))
1778
1779
                          if not os.path.isfile(extraction_dir + '/responce.txt'):
1780
                              with open(extraction_dir + '/responce.txt', 'w') as f:
1781
                                  f.write(lab_responce)
1782
```

```
1783
                           if not os.path.isfile(extraction_dir + '/tech_info.txt'):
1784
                               with open(extraction_dir + '/tech_info.txt', 'w') as f:
1785
                                   f.writelines(['File was submited at %s<br/>\n' % subm_time,
1786
                                                 'I started processing your file at %s<br/>\n' % proc_time,
1787
                                                  "I found that your lab type is '%s' and it's number is %s <br/>"
      % (lab_type, lab_num),
                                                  'So max points for this lab type is <u^*d</u><br/>' % max_points, 'Theoretical max points: %s)' % penalty_mess])
1788
1789
1790
1791
                          init_new_lab(id_to_classId[parts[0]], lid, current_check, subm_int,
      extraction_dir)
1792
                          imported_files_counter += 1
1793
1794
                      # cp2(self.selected_path + due_file[current_check-1], paths_to_grading_dir)
1795
1796
                      # check_filename = paths_to_grading_dir + 'check_' + str(current_check) + '_' +
       str(current timestamp)
1797
                      # with open(check_filename, 'w'): pass
1798
                      gen_report(lid, att=current_check)
1799
1800
                      # cp2(check_filename, self.selected_path)
1801
1802
                      self.import_but.setEnabled(True)
1803
                      self.import_but.setText('Import labs')
1804
                      self.status_bar.setText("Imported " + str(imported_files_counter) + " files.")
1805
                      return True
1806
1807
             return False
1808
1809
1810
```

Here is the call graph for this function:



Here is the caller graph for this function:



### 7.15.2.6 open\_dates\_dialog()

### Definition at line 1827 of file main.py.

```
1827
         def open_dates_dialog(self):
1828
             self.create_due_dates_but.setDisabled(True)
1829
             self.create_due_dates_but.repaint()
1830
             self.cal_window = QtWidgets.QDialog()
1831
             dui = Ui_Create_dates_dialog1()
1832
             dui.setupUi(self.cal_window, self.selected_lab_name)
1833
             # self.cal_window.finished.connect(self.check_new_win_result)
1834
             self.cal_window.show()
1835
             accepted = self.cal_window.exec_()
1836
             if accepted:
1837
                 due_dates = list()
1838
                 due_dates.append(dui.init_subm_date_time.dateTime().toTime_t())
1839
                 due_dates.append(dui.first_subm_date_time.dateTime().toTime_t())
1840
                 due_dates.append(dui.second_subm_date_time.dateTime().toTime_t())
1841
                 due_dates.append(dui.third_subm_date_time.dateTime().toTime_t())
                 due_location = dui.lab_path.text()
1843
                 self.due_date_creator(due_location, due_dates)
                 year, semester = self.main_lab_path.split('/')[-1].split('_')
1845
                 ltype, _, lab_num = self.selected_lab_name.split('_')
                 register_lab_in_semester(ltype, lab_num, year, semester, due_dates)
1847
             self.create_due_dates_but.setEnabled(True)
```

Here is the caller graph for this function:



### 7.15.2.7 scan\_for\_labs()

```
\begin{tabular}{ll} $\operatorname{def main.Ui\_manage\_labs1.scan\_for\_labs} & ( \\ & self \end{tabular} \label{eq:self}
```

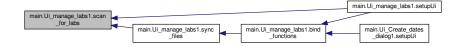
Definition at line 1651 of file main.py.

```
1651
           def scan_for_labs(self):
1652
                paths, local = settings_db_read_settings()
                # self.local_path = paths[1] + str(local[1]) + '_' + str(local[2]) + '/'
self.main_lab_path = get_full_path(paths, local)
self.srv_sync_path = self.main_lab_path + "/server_sync/"
1653
1654
1655
1656
                dirs = os.walk(self.srv_sync_path).__next__()[1]
1657
                if len(dirs) > 0:
1658
                     self.labs_select_comboBox.addItems(sorted(dirs))
1659
                     self.labs_select_comboBox.setCurrentIndex(0)
1660
                     self.labs_select_comboBox.setFocus(True)
                     self.update_status_bar(force=True)
1662
1663
```

Here is the call graph for this function:



Here is the caller graph for this function:



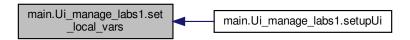
### 7.15.2.8 set\_local\_vars()

```
\begin{tabular}{ll} $\tt def main.Ui\_manage\_labs1.set\_local\_vars ( \\ &self ) \end{tabular}
```

Definition at line 1604 of file main.py.

```
1604 def set_local_vars(self):
1605 pass
1606
```

Here is the caller graph for this function:

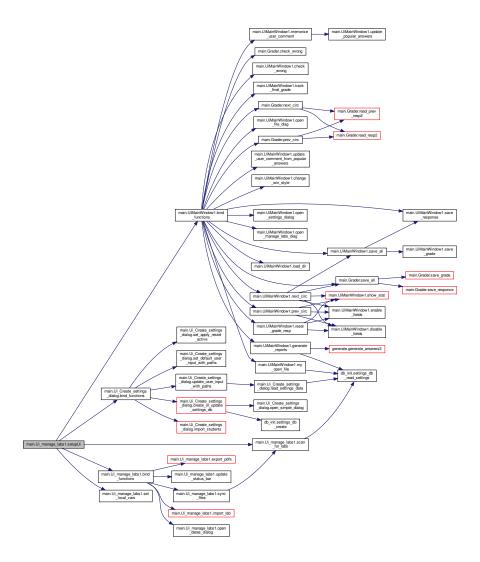


# 7.15.2.9 setupUi()

Definition at line 1588 of file main.py.

```
1588
         def setupUi(self, manage_labs):
1589
              super().setupUi(manage_labs)
1590
              self.bind_functions()
1591
              self.set_local_vars()
1592
1593
                  self.scan_for_labs()
1594
                  if self.labs_select_comboBox.count() > 0:
    self.labs_select_comboBox.setEnabled(True)
1595
1596
1597
                       self.import_but.setEnabled(True)
1598
                       self.create_due_dates_but.setEnabled(True)
1599
                       self.export_but.setEnabled(True)
1600
              except Exception as e:
1601
                  print('Error in manage labs. Probably your grading path was not set properly: ', e)
1602
1603
```

Here is the call graph for this function:



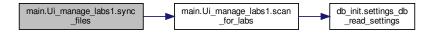
## 7.15.2.10 sync\_files()

## Definition at line 1626 of file main.py.

```
1626 def sync_files(self):
1627 self.sync_but.setDisabled(True)
1628 self.sync_but.setText('Synchronizing...')
1629 self.sync_but.repaint()
1630 self.status_bar.setText("Synchronizing...")
1631 self.status_bar.repaint()
```

```
1632
             sync_files()
1633
             self.status_bar.setText("Done.")
1634
             self.sync_but.setText('Sync to local storage')
1635
             self.sync_but.setEnabled(True)
1636
1637
             sync_success = True # there are no tools to check it at this point.
1638
             if sync_success and not self.labs_select_comboBox.isEnabled():
1639
                 self.labs_select_comboBox.setEnabled(True)
1640
                 self.create_due_dates_but.setEnabled(True)
1641
                 self.scan_for_labs()
1642
                 # TODO: There should be additional checks to enable import and export, but I do not have
       enough time to implement them.
1643
                 self.import_but.setEnabled(True)
1644
                 self.export_but.setEnabled(True)
1645
```

Here is the call graph for this function:



Here is the caller graph for this function:



#### 7.15.2.11 update\_status\_bar()

## Definition at line 1607 of file main.py.

```
1607
         def update_status_bar(self, force=False):
1608
             # no need to scan files in background, but only when user selects it intentionally, or if it is
       first run
1609
             if self.labs_select_comboBox.hasFocus() or force:
                 self.selected_lab_name = self.labs_select_comboBox.currentText()
1610
                 self.selected_path = self.srv_sync_path + self.selected_lab_name + '/'
1611
                 zip_pdf_files = [f for f in os.listdir(self.selected_path) if '.zip' in f or '.pdf' in f]
1612
1613
                 self.pdf_files_len = len([f for f in zip_pdf_files if f.split('.')[1] == 'pdf'])
1614
                 self.zip_files_len = len([f for f in zip_pdf_files if f.split('.')[1] == 'zip'])
1615
```

```
1616
 1617
                                                                                               \tt self.status\_bar.setText("Contains " + str(self.zip\_files\_len) + ' zip files and ' + str(self.zip\_files\_len) + ' zip files\_len + ' zip file
                                 pdf_files_len) + ' pdf files.')
  1618
  1619
                                                                                              if self.zip_files_len > 0 and not self.create_due_dates_but.isEnabled():
  1620
                                                                                                                     self.export_but.setEnabled(True)
  1621
                                                                                                                     self.import_but.setEnabled(True)
  1622
                                                                                                                     self.labs_select_comboBox.setEnabled(True)
  1623
                                                                                           # good_zip_files_size = len([f for f in zip_files if os.isfile(os.path.join(selected_path,
1624
                                        f))])
  1625
```

Here is the caller graph for this function:



## 7.15.3 Member Data Documentation

## 7.15.3.1 cal\_window

main.Ui\_manage\_labs1.cal\_window

Definition at line 1830 of file main.py.

#### 7.15.3.2 main\_lab\_path

main.Ui\_manage\_labs1.main\_lab\_path

Definition at line 1654 of file main.py.

## 7.15.3.3 pdf\_files\_len

main.Ui\_manage\_labs1.pdf\_files\_len

Definition at line 1614 of file main.py.

## 7.15.3.4 selected\_lab\_name

```
main.Ui_manage_labs1.selected_lab_name = None [static]
```

Definition at line 1577 of file main.py.

## 7.15.3.5 selected\_path

```
main.Ui_manage_labs1.selected_path = None [static]
```

Definition at line 1576 of file main.py.

## 7.15.3.6 srv\_sync\_path

```
main.Ui_manage_labs1.srv_sync_path = None [static]
```

Definition at line 1575 of file main.py.

## 7.15.3.7 zip\_files\_len

```
main.Ui_manage_labs1.zip_files_len = None [static]
```

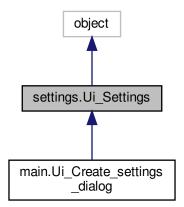
Definition at line 1578 of file main.py.

The documentation for this class was generated from the following file:

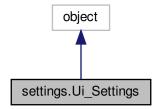
main.py

# 7.16 settings.Ui\_Settings Class Reference

Inheritance diagram for settings.Ui\_Settings:



Collaboration diagram for settings.Ui\_Settings:



## **Public Member Functions**

- def setupUi (self, Settings)
- def retranslateUi (self, Settings)

## **Public Attributes**

- · verticalLayout
- groupBox\_db
- formLayout
- · label\_settings\_db
- input\_settings\_db
- label\_grades\_db
- input\_grades\_db
- groupBox\_user
- formLayout\_2
- · label\_logisim\_path
- · input\_logisim\_path
- · label\_local\_stor
- · input\_local\_stor
- · label\_rem\_stor
- input\_rem\_stor
- groupBox\_local
- gridLayout
- spin\_year
- label\_grad\_year
- input\_grader\_name
- · label\_semester
- label\_style
- label\_sync\_comm
- · label\_grader\_name
- style\_checkBox
- semester\_comboBox
- sync\_command
- import\_stuents\_btn
- buttonBox

## 7.16.1 Detailed Description

Definition at line 11 of file settings.py.

## 7.16.2 Member Function Documentation

## 7.16.2.1 retranslateUi()

#### Definition at line 227 of file settings.py.

```
def retranslateUi(self, Settings):
228
231
                 _translate = QtCore.QCoreApplication.translate
                Settings.setWindowTitle(_translate("Settings", "Settings"))
232
                self.groupBox_db.setTitle(_translate("Settings", "&Database paths:"))
233
                self.label_settings_db.setText(_translate("Settings", "Settings"))
self.input_settings_db.setText(_translate("Settings", "./settings.sqlite3"))
235
236
                self.label_grades_db.setText(_translate("Settings", "Grades"))
                self.input_grades_db.setPlaceholderText(_translate("Settings",
237
        ~/Documents/3130_labs/grades.sqlite3"))
238
                self.groupBox_user.setTitle(_translate("Settings", "User paths"))
                self.label_logisim_path.setText(_translate("Settings", "Logisim path"))
self.input_logisim_path.setPlaceholderText(_translate("Settings", "path to logisim executable
239
240
         logisim.jar"))
                self.label_local_stor.setText(_translate("Settings", "Local lab storage"))
242
                self.input_local_stor.setPlaceholderText(_translate("Settings", "local directory that contains
         labs, reports, and other working files"))
243
                self.label_rem_stor.setText(_translate("Settings", "Remote lab storage"))
                self.input_rem_stor.setPlaceholderText(_translate("Settings", "sshfs mounted dir that points to
244
         submission directory on the remote server"))
245
                self.groupBox_local.setTitle(_translate("Settings", "&Local settings"))
                self.label_grad_year.setText(_translate("Settings", "Grading year"))
self.label_semester.setText(_translate("Settings", "Grading semester"))
246
247
                self.label_style.setText(_translate("Settings", "Use styles"))
248
                self.label_sync_comm.setText(_translate("Settings", "Sync command"))
self.label_grader_name.setText(_translate("Settings", "Grader name"))
249
250
                self.semester_comboBox.setItemText(0, _translate("Settings", "Spring"))
2.51
                self.semester_comboBox.setItemText(0, _translate("SetLings", "Spring"))
self.semester_comboBox.setItemText(1, _translate("SetLings", "Summer"))
self.semester_comboBox.setItemText(2, _translate("SetLings", "Fall"))
self.sync_command.setPlaceholderText(_translate("SetLings", "rsync -avz ? cp -v ? dd ... ?"))
self.import_stuents_btn.setText(_translate("SetLings", "Import_students"))
2.52
253
2.54
255
256
2.57
```

#### 7.16.2.2 setupUi()

## Definition at line 12 of file settings.py.

```
12
       def setupUi(self, Settings):
           Settings.setObjectName("Settings")
13
           Settings.setEnabled(True)
15
           Settings.resize(800, 487)
           Settings.setMinimumSize(QtCore.QSize(600, 0))
16
17
           icon = OtGui.OIcon()
           icon.addPixmap(QtGui.QPixmap("os_linux_1.ico"), QtGui.QIcon.Normal, QtGui.QIcon.Off)
18
           Settings.setWindowIcon(icon)
19
           Settings.setLocale(QtCore.QLocale(QtCore.QLocale.English, QtCore.QLocale.UnitedStates))
20
21
           self.verticalLayout = QtWidgets.QVBoxLayout(Settings)
           self.verticalLayout.setObjectName("verticalLayout")
2.2
           self.groupBox_db = QtWidgets.QGroupBox(Settings)
23
           \verb|sizePolicy| = QtWidgets.QSizePolicy.Preferred, QtWidgets.QSizePolicy.Preferred| \\
2.4
```

```
)
           sizePolicy.setHorizontalStretch(0)
25
26
           sizePolicy.setVerticalStretch(0)
27
           sizePolicy.setHeightForWidth(self.groupBox_db.sizePolicy().hasHeightForWidth())
           self.groupBox_db.setSizePolicy(sizePolicy)
28
29
           self.groupBox_db.setMinimumSize(QtCore.QSize(0, 0))
30
           self.groupBox_db.setAutoFillBackground(False)
           self.groupBox_db.setAlignment(QtCore.Qt.AlignLeading|QtCore.Qt.AlignLeft|QtCore.Qt.AlignTop)
31
           self.groupBox_db.setFlat(False)
32
           self.groupBox_db.setCheckable(False)
33
34
           self.groupBox_db.setObjectName("groupBox_db")
35
           self.formLayout = QtWidgets.QFormLayout(self.groupBox_db)
36
           self.formLayout.setObjectName("formLayout")
37
           self.label_settings_db = QtWidgets.QLabel(self.groupBox_db)
38
           self.label_settings_db.setMinimumSize(QtCore.QSize(110, 0))
39
           self.label_settings_db.setObjectName("label_settings_db")
40
           self.formLayout.setWidget(0, QtWidgets.QFormLayout.LabelRole, self.label_settings_db)
           self.input_settings_db = QtWidgets.QLineEdit(self.groupBox_db)
41
42
           self.input_settings_db.setEnabled(False)
43
           self.input_settings_db.setMinimumSize(QtCore.QSize(550, 31))
           self.input_settings_db.setObjectName("input_settings_db")
44
           self.formLayout.setWidget(0, QtWidgets.QFormLayout.FieldRole, self.input_settings_db)
45
           self.label_grades_db = QtWidgets.QLabel(self.groupBox_db)
46
47
           self.label_grades_db.setMinimumSize(QtCore.QSize(110, 0))
           self.label_grades_db.setObjectName("label_grades_db")
48
           self.formLayout.setWidget(1, QtWidgets.QFormLayout.LabelRole, self.label_grades_db)
49
           self.input_grades_db = QtWidgets.QLineEdit(self.groupBox_db)
self.input_grades_db.setMinimumSize(QtCore.QSize(550, 31))
50
51
52
           self.input_grades_db.setText("")
53
           self.input_grades_db.setObjectName("input_grades_db")
           self.formLayout.setWidget(1, QtWidgets.QFormLayout.FieldRole, self.input_grades_db)
54
           self.verticalLayout.addWidget(self.groupBox_db)
55
           self.groupBox_user = QtWidgets.QGroupBox(Settings)
56
           self.groupBox_user.setEnabled(False)
57
           \verb|sizePolicy| = QtWidgets.QSizePolicy(QtWidgets.QSizePolicy.Preferred, QtWidgets.QSizePolicy.Preferred)|
58
      )
59
           sizePolicy.setHorizontalStretch(0)
60
           sizePolicy.setVerticalStretch(0)
61
           sizePolicy.setHeightForWidth(self.groupBox_user.sizePolicy().hasHeightForWidth())
62
           self.groupBox_user.setSizePolicy(sizePolicy)
63
           self.groupBox_user.setMinimumSize(QtCore.QSize(0, 0))
64
           self.groupBox_user.setObjectName("groupBox_user")
65
           self.formLayout_2 = QtWidgets.QFormLayout(self.groupBox_user)
66
           self.formLayout_2.setObjectName("formLayout_2")
67
           self.label_logisim_path = QtWidgets.QLabel(self.groupBox_user)
68
           sizePolicy = QtWidgets.QSizePolicy(QtWidgets.QSizePolicy.Preferred, QtWidgets.QSizePolicy.Preferred
69
           sizePolicy.setHorizontalStretch(0)
70
           sizePolicy.setVerticalStretch(0)
71
           sizePolicy.setHeightForWidth(self.label_logisim_path.sizePolicy().hasHeightForWidth())
72
           self.label_logisim_path.setSizePolicy(sizePolicy)
73
           self.label_logisim_path.setMinimumSize(QtCore.QSize(110, 0))
74
           self.label_logisim_path.setObjectName("label_logisim_path")
75
           self.formLayout_2.setWidget(0, QtWidgets.QFormLayout.LabelRole, self.label_logisim_path)
76
           self.input_logisim_path = QtWidgets.QLineEdit(self.groupBox_user)
77
           sizePolicy = QtWidgets.QSizePolicy(QtWidgets.QSizePolicy.Expanding, QtWidgets.QSizePolicy.Fixed)
78
           sizePolicy.setHorizontalStretch(0)
79
           sizePolicy.setVerticalStretch(0)
80
           sizePolicy.setHeightForWidth(self.input_logisim_path.sizePolicy().hasHeightForWidth())
81
           self.input_logisim_path.setSizePolicy(sizePolicy)
           self.input_logisim_path.setMinimumSize(QtCore.QSize(637, 31))
82
83
           self.input_logisim_path.setText("")
84
           self.input_logisim_path.setObjectName("input_logisim_path")
8.5
           self.formLayout_2.setWidget(0, QtWidgets.QFormLayout.FieldRole, self.input_logisim_path)
           self.label_local_stor = QtWidgets.QLabel(self.groupBox_user)
           self.label_local_stor.setMinimumSize(QtCore.QSize(110, 0))
           self.label_local_stor.setObjectName("label_local_stor")
88
89
           self.formLayout_2.setWidget(1, QtWidgets.QFormLayout.LabelRole, self.label_local_stor)
90
           self.input_local_stor = QtWidgets.QLineEdit(self.groupBox_user)
91
           self.input_local_stor.setMinimumSize(QtCore.QSize(637, 31))
92
           self.input_local_stor.setText("")
           self.input_local_stor.setObjectName("input_local_stor")
93
           self.formLayout_2.setWidget(1, QtWidgets.QFormLayout.FieldRole, self.input_local_stor)
94
           self.label_rem_stor = QtWidgets.QLabel(self.groupBox_user)
95
96
           self.label_rem_stor.setMinimumSize(QtCore.QSize(110, 0))
           self.label_rem_stor.setObjectName("label_rem_stor")
97
98
           self.formLayout_2.setWidget(2, QtWidgets.QFormLayout.LabelRole, self.label_rem_stor)
99
           self.input_rem_stor = QtWidgets.QLineEdit(self.groupBox_user)
100
            self.input_rem_stor.setMinimumSize(QtCore.QSize(637, 31))
101
            self.input_rem_stor.setInputMask("")
102
            self.input_rem_stor.setText("")
```

```
103
            self.input_rem_stor.setObjectName("input_rem_stor")
            self.formLayout_2.setWidget(2, QtWidgets.QFormLayout.FieldRole, self.input_rem_stor)
104
            self.verticalLayout.addWidget(self.groupBox_user)
105
106
            self.groupBox_local = QtWidgets.QGroupBox(Settings)
107
            sizePolicy = QtWidgets.QSizePolicy(QtWidgets.QSizePolicy.Preferred,
      QtWidgets.QSizePolicy.MinimumExpanding)
108
            sizePolicy.setHorizontalStretch(0)
            sizePolicy.setVerticalStretch(0)
109
110
            sizePolicy.setHeightForWidth(self.groupBox_local.sizePolicy().hasHeightForWidth())
111
            self.groupBox_local.setSizePolicy(sizePolicy)
            self.groupBox_local.setMinimumSize(QtCore.QSize(0, 145))
113
            self.groupBox_local.setMaximumSize(QtCore.QSize(16777215, 300))
            self.groupBox_local.setFlat(False)
114
115
            self.groupBox_local.setCheckable(False)
116
            self.groupBox_local.setObjectName("groupBox_local")
117
            self.gridLayout = QtWidgets.QGridLayout(self.groupBox_local)
118
            self.gridLayout.setObjectName("gridLayout")
            self.spin_year = QtWidgets.QSpinBox(self.groupBox_local)
119
120
            self.spin_year.setEnabled(False)
121
            self.spin_year.setMinimumSize(QtCore.QSize(110, 31))
122
            self.spin_year.setMaximumSize(QtCore.QSize(110, 16777215))
123
            self.spin_year.setWrapping(True)
124
            self.spin_year.setReadOnly(False)
125
            self.spin_year.setButtonSymbols(QtWidgets.QAbstractSpinBox.PlusMinus)
126
            self.spin_year.setAccelerated(True)
            self.spin_year.setProperty("showGroupSeparator", False)
127
            self.spin_year.setMinimum(2012)
128
129
            self.spin_year.setMaximum(2026)
130
            self.spin_year.setProperty("value", 2018)
131
            self.spin_year.setObjectName("spin_year")
            self.gridLayout.addWidget(self.spin_year, 0, 1, 1, 1)
132
            self.label_grad_year = QtWidgets.QLabel(self.groupBox_local)
133
134
            \verb|sizePolicy| = QtWidgets.QSizePolicy(QtWidgets.QSizePolicy.Preferred, QtWidgets.QSizePolicy.Fixed)|
135
            sizePolicy.setHorizontalStretch(0)
136
            sizePolicy.setVerticalStretch(0)
137
            sizePolicy.setHeightForWidth(self.label_grad_year.sizePolicy().hasHeightForWidth())
138
            self.label_grad_year.setSizePolicy(sizePolicy)
139
            self.label_grad_year.setMinimumSize(QtCore.QSize(110, 31))
            self.label_grad_year.setMaximumSize(QtCore.QSize(110, 16777215))
self.label_grad_year.setObjectName("label_grad_year")
140
141
142
            self.gridLayout.addWidget(self.label_grad_year, 0, 0, 1, 1)
143
            self.input_grader_name = QtWidgets.QLineEdit(self.groupBox_local)
144
            self.input_grader_name.setEnabled(False)
145
            self.input_grader_name.setMinimumSize(QtCore.QSize(110, 31))
146
            self.input_grader_name.setMaximumSize(QtCore.QSize(110, 16777215))
147
            self.input_grader_name.setObjectName("input_grader_name")
148
            self.gridLayout.addWidget(self.input_grader_name, 2, 1, 1,
149
            self.label_semester = QtWidgets.QLabel(self.groupBox_local)
150
            \verb|sizePolicy| = QtWidgets.QSizePolicy(QtWidgets.QSizePolicy.Preferred, QtWidgets.QSizePolicy.Fixed)|
151
            sizePolicy.setHorizontalStretch(0)
152
            sizePolicy.setVerticalStretch(0)
153
            \verb|sizePolicy.setHeightForWidth(self.label\_semester.sizePolicy().hasHeightForWidth())| \\
            self.label_semester.setSizePolicy(sizePolicy)
154
155
            self.label_semester.setMinimumSize(QtCore.QSize(110, 31))
156
            self.label_semester.setMaximumSize(QtCore.QSize(110, 16777215))
157
            self.label_semester.setObjectName("label_semester")
            self.gridLayout.addWidget(self.label_semester, 0, 3, 1, 1)
158
            self.label_style = QtWidgets.QLabel(self.groupBox_local)
159
            self.label_style.setMinimumSize(QtCore.QSize(110, 31))
160
161
            self.label_style.setObjectName("label_style")
162
            self.gridLayout.addWidget(self.label_style, 1, 0, 1, 1)
163
            self.label_sync_comm = QtWidgets.QLabel(self.groupBox_local)
164
            self.label_sync_comm.setObjectName("label_sync_comm")
165
            self.gridLayout.addWidget(self.label_sync_comm, 2, 3, 1, 1)
166
            self.label_grader_name = QtWidgets.QLabel(self.groupBox_local)
167
            sizePolicy = QtWidgets.QSizePolicy(QtWidgets.QSizePolicy.Preferred, QtWidgets.QSizePolicy.Fixed)
168
            sizePolicy.setHorizontalStretch(0)
169
            sizePolicy.setVerticalStretch(0)
170
            \verb|sizePolicy.setHeightForWidth(self.label\_grader\_name.sizePolicy().hasHeightForWidth())| \\
171
            self.label_grader_name.setSizePolicy(sizePolicy)
172
            self.label_grader_name.setMinimumSize(QtCore.QSize(110, 31))
            self.label_grader_name.setObjectName("label_grader_name"
173
174
            self.gridLavout.addWidget(self.label grader name, 2, 0, 1, 1)
175
            self.style_checkBox = QtWidgets.QCheckBox(self.groupBox_local)
176
            self.style_checkBox.setEnabled(False)
177
            sizePolicy = QtWidgets.QSizePolicy(QtWidgets.QSizePolicy.MinimumExpanding,
      OtWidgets.OSizePolicy.Fixed)
178
            sizePolicy.setHorizontalStretch(0)
179
            sizePolicy.setVerticalStretch(0)
            \verb|sizePolicy.setHeightForWidth(self.style_checkBox.sizePolicy().hasHeightForWidth())| \\
180
181
            self.style_checkBox.setSizePolicy(sizePolicy)
```

```
182
                      self.style_checkBox.setMinimumSize(QtCore.QSize(0, 31))
                      self.style_checkBox.setMaximumSize(QtCore.QSize(110, 16777215))
183
184
                      self.style_checkBox.setLayoutDirection(QtCore.Qt.LeftToRight)
                      self.style_checkBox.setText("")
185
                     self.style_checkBox.setObjectName("style_checkBox")
186
187
                     self.gridLayout.addWidget(self.style_checkBox, 1, 1, 1, 1)
188
                      self.semester_comboBox = QtWidgets.QComboBox(self.groupBox_local)
189
                     self.semester_comboBox.setEnabled(False)
190
                     self.semester_comboBox.setMinimumSize(QtCore.QSize(110, 31))
191
                     self.semester_comboBox.setMaximumSize(QtCore.QSize(110, 16777215))
192
                     self.semester_comboBox.setMaxVisibleItems(3)
193
                     self.semester_comboBox.setMaxCount(5)
194
                     self.semester_comboBox.setObjectName("semester_comboBox")
195
                     self.semester_comboBox.addItem("")
196
                     self.semester_comboBox.addItem("")
197
                     self.semester_comboBox.addItem("")
198
                     self.gridLayout.addWidget(self.semester_comboBox, 0, 4, 1, 1)
199
                     self.sync_command = QtWidgets.QLineEdit(self.groupBox_local)
200
                     self.sync_command.setEnabled(False)
201
                     self.sync_command.setMinimumSize(QtCore.QSize(0, 31))
                     self.sync_command.setInputMask("")
202
203
                     self.sync_command.setObjectName("sync_command")
204
                     self.gridLayout.addWidget(self.sync_command, 2, 4, 1, 4)
205
                     self.import_stuents_btn = QtWidgets.QPushButton(self.groupBox_local)
                     self.import_stuents_btn.setObjectName("import_stuents_btn")
206
207
                     self.gridLayout.addWidget(self.import_stuents_btn, 0, 6, 1, 1)
208
                     spacerItem = QtWidgets.QSpacerItem(40, 20, QtWidgets.QSizePolicy.Expanding,
           QtWidgets.QSizePolicy.Minimum)
209
                     \verb|self.gridLayout.addItem(spacerItem, 0, 5, 1, 1)|\\
210
                     self.verticalLayout.addWidget(self.groupBox_local)
                     self.buttonBox = QtWidgets.QDialogButtonBox(Settings)
211
                     \verb|sizePolicy| = QtWidgets.QSizePolicy(QtWidgets.QSizePolicy.Expanding, QtWidgets.QSizePolicy.Fixed)| \\
212
213
                      sizePolicy.setHorizontalStretch(0)
214
                     sizePolicy.setVerticalStretch(0)
215
                      \verb|sizePolicy.setHeightForWidth(self.buttonBox.sizePolicy().hasHeightForWidth())| \\
216
                     self.buttonBox.setSizePolicy(sizePolicy)
217
                      self.buttonBox.setOrientation(QtCore.Qt.Horizontal)
218
                     \verb|self.buttonBox.setStandardButtons(QtWidgets.QDialogButtonBox.Apply||
            \tt QtWidgets.QDialogButtonBox.Cancel|QtWidgets.QDialogButtonBox.Ok|QtWidgets.QDialogButtonBox.Reset|QtWidgets.QDialogButtonBox.Cancel|QtWidgets.QDialogButtonBox.QDialogButtonBox.Cancel|QtWidgets.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButtonBox.QDialogButton
219
                     self.buttonBox.setObjectName("buttonBox")
220
                     self.verticalLayout.addWidget(self.buttonBox)
221
222
                     self.retranslateUi(Settings)
223
                     self.buttonBox.accepted.connect(Settings.accept)
224
                      self.buttonBox.rejected.connect(Settings.reject)
225
                     QtCore.QMetaObject.connectSlotsByName(Settings)
226
```

#### 7.16.3 Member Data Documentation

## 7.16.3.1 buttonBox

settings.Ui\_Settings.buttonBox

Definition at line 211 of file settings.py.

## 7.16.3.2 formLayout

settings.Ui\_Settings.formLayout

Definition at line 35 of file settings.py.

```
7.16.3.3 formLayout_2
```

settings.Ui\_Settings.formLayout\_2

Definition at line 65 of file settings.py.

## 7.16.3.4 gridLayout

settings.Ui\_Settings.gridLayout

Definition at line 117 of file settings.py.

## 7.16.3.5 groupBox\_db

settings.Ui\_Settings.groupBox\_db

Definition at line 23 of file settings.py.

## 7.16.3.6 groupBox\_local

settings.Ui\_Settings.groupBox\_local

Definition at line 106 of file settings.py.

#### 7.16.3.7 groupBox\_user

settings.Ui\_Settings.groupBox\_user

Definition at line 56 of file settings.py.

## 7.16.3.8 import\_stuents\_btn

settings.Ui\_Settings.import\_stuents\_btn

Definition at line 205 of file settings.py.

```
7.16.3.9 input_grader_name
```

```
settings.Ui_Settings.input_grader_name
```

Definition at line 143 of file settings.py.

7.16.3.10 input\_grades\_db

settings.Ui\_Settings.input\_grades\_db

Definition at line 50 of file settings.py.

7.16.3.11 input\_local\_stor

settings.Ui\_Settings.input\_local\_stor

Definition at line 90 of file settings.py.

7.16.3.12 input\_logisim\_path

settings.Ui\_Settings.input\_logisim\_path

Definition at line 76 of file settings.py.

7.16.3.13 input\_rem\_stor

settings.Ui\_Settings.input\_rem\_stor

Definition at line 99 of file settings.py.

7.16.3.14 input\_settings\_db

 $\verb|settings.Ui_Settings.input_settings_db|\\$ 

Definition at line 41 of file settings.py.

7.16.3.15 label\_grad\_year

settings.Ui\_Settings.label\_grad\_year

Definition at line 133 of file settings.py.

7.16.3.16 label\_grader\_name

settings.Ui\_Settings.label\_grader\_name

Definition at line 166 of file settings.py.

7.16.3.17 label\_grades\_db

 ${\tt settings.Ui\_Settings.label\_grades\_db}$ 

Definition at line 46 of file settings.py.

7.16.3.18 label\_local\_stor

settings.Ui\_Settings.label\_local\_stor

Definition at line 86 of file settings.py.

7.16.3.19 label\_logisim\_path

settings.Ui\_Settings.label\_logisim\_path

Definition at line 67 of file settings.py.

7.16.3.20 label\_rem\_stor

settings.Ui\_Settings.label\_rem\_stor

Definition at line 95 of file settings.py.

```
7.16.3.21 label_semester
```

```
settings.Ui_Settings.label_semester
```

Definition at line 149 of file settings.py.

7.16.3.22 label\_settings\_db

```
settings.Ui_Settings.label_settings_db
```

Definition at line 37 of file settings.py.

7.16.3.23 label\_style

settings.Ui\_Settings.label\_style

Definition at line 159 of file settings.py.

7.16.3.24 label\_sync\_comm

settings.Ui\_Settings.label\_sync\_comm

Definition at line 163 of file settings.py.

7.16.3.25 semester\_comboBox

settings.Ui\_Settings.semester\_comboBox

Definition at line 188 of file settings.py.

7.16.3.26 spin\_year

settings.Ui\_Settings.spin\_year

Definition at line 119 of file settings.py.

## 7.16.3.27 style\_checkBox

settings.Ui\_Settings.style\_checkBox

Definition at line 175 of file settings.py.

#### 7.16.3.28 sync\_command

 ${\tt settings.Ui\_Settings.sync\_command}$ 

Definition at line 199 of file settings.py.

## 7.16.3.29 verticalLayout

settings.Ui\_Settings.verticalLayout

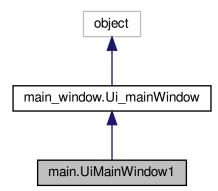
Definition at line 21 of file settings.py.

The documentation for this class was generated from the following file:

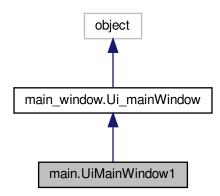
• settings.py

## 7.17 main.UiMainWindow1 Class Reference

Inheritance diagram for main.UiMainWindow1:



Collaboration diagram for main.UiMainWindow1:



## **Public Member Functions**

- def \_\_init\_\_ (self)
- def disable\_fields (self)
- def enable\_fields (self)
- def load\_dir (self)
- def my\_open\_file (self)
- def show\_stat (self)
- def check\_file (self)
- def next\_circ (self)
- def prev\_circ (self)
- · def check wrong (self)
- def regrade (self)
- def reset\_grade\_resp (self)
- def update\_popular\_answers (self)
- def save\_grade (self)
- def save\_response (self)
- def save\_all (self)
- def track\_final\_grade (self)
- def setupUi (self, main\_window)
- def sync\_params\_to\_settings (self)
- def bind\_functions (self)
- def change\_win\_style (self)
- def dummy\_d\_1 (self)
- def update\_user\_comment\_from\_popular\_answers (self)
- def open\_file\_diag (self)
- def memorize user comment (self)
- def kill\_logisim (self)
- def run\_logisim (self, filename)
- def generate\_reports (self)
- def open\_settings\_dialog (self)
- def open\_manage\_labs\_diag (self)

## **Public Attributes**

- grader\_ref
- cal\_window
- · working\_dir
- · class\_id\_to\_id
- current\_tz
- logisim\_path
- grader\_name
- settings\_window
- manage\_labs\_window

## 7.17.1 Detailed Description

Definition at line 719 of file main.py.

## 7.17.2 Constructor & Destructor Documentation

Definition at line 721 of file main.py.

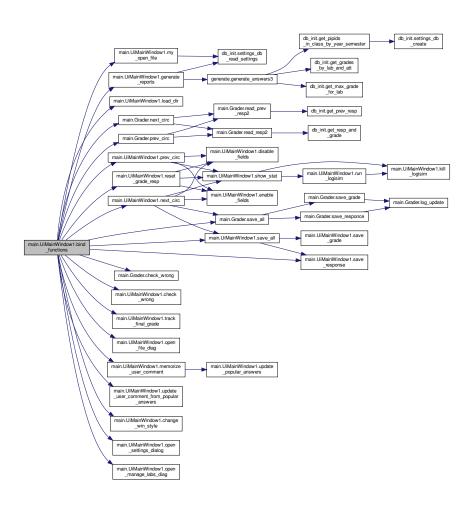
```
721 def __init__(self):
722 Ui_mainWindow.__init__(self)
723 self.grader_ref = None
724 self.cal_window = None
725 self.working_dir = None
726
727
728
```

## 7.17.3 Member Function Documentation

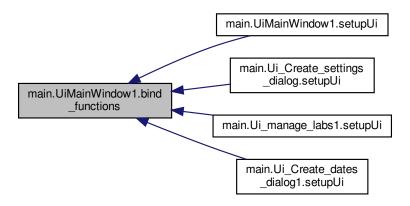
## 7.17.3.1 bind\_functions()

Definition at line 1124 of file main.py.

```
1124
         def bind_functions(self):
1125
             self.but_file_open.clicked.connect(self.my_open_file)
1126
             self.but_begin.clicked.connect(self.load_dir)
             self.but_next.clicked.connect(self.next_circ)
1128
             self.but_prev.clicked.connect(self.prev_circ)
1129
             self.checkB_wrong.clicked.connect(self.check_wrong)
1130
             # self.but_regrade.clicked.connect(self.regrade)
             self.but_save_all.clicked.connect(self.save_all)
1132
             self.but_save_response.clicked.connect(self.save_response)
             self.input_final_grade.textEdited.connect(self.track_final_grade)
1134
             # self.but_edit_done.clicked.connect(self.resp_edit_done)
1135
               self.popular_answers.activated.connect(self.select_saved_answer)
1136
             # self.but_create_report.setEnabled(True) # Debug
1137
             self.but_create_report.clicked.connect(self.generate_reports)
1138
             # self.new_window_but.clicked.connect(self.open_dates_dialog)
                self.input_response_browser_user.focusInEvent(self, self.memorize_user_comment)
1139
1140
                self.custom_but_test.right_clicked[int].connect(self.dummy_d)
1141
             self.input_file_location.dclicked.connect(self.open_file_diag)
1142
             self.input_response_browser_user.focus_lost.connect(self.memorize_user_comment)
             self.popular_answers.currentIndexChanged.connect(self.update_user_comment_from_popular_answers)
1143
1144
             self.set_style_checkbox.stateChanged.connect(self.change_win_style)
1145
             self.but_reset.clicked.connect(self.reset_grade_resp)
             self.settings_but.clicked.connect(self.open_settings_dialog)
1146
1147
             self.manage_labs_but.clicked.connect(self.open_manage_labs_diag)
1148
             # self.sync_but.clicked.connect(self.sync_files)
1149
1150
1151
```



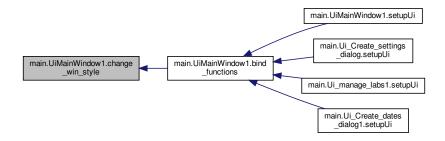
Here is the caller graph for this function:



## 7.17.3.2 change\_win\_style()

```
\begin{tabular}{ll} $\operatorname{def main.UiMainWindowl.change\_win\_style} & ( \\ & self \end{tabular} ) \end{tabular}
```

Definition at line 1157 of file main.py.



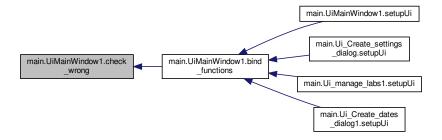
#### 7.17.3.3 check\_file()

## Definition at line 900 of file main.py.

```
900
        def check_file(self):
901
            self.input_subtract.setText(str(self.grader_ref.subtract))
902
            self.input_final_grade.setText(str(self.grader_ref.final_grade))
903
            self.input_log_browser.setText(self.grader_ref.global_log)
904
905
            # self.input_log_browser.append(self.grader_ref.global_log)
906
907
            if self.grader_ref.input_correct:
                self.checkB_input_pin_status.setChecked(True)
909
            if self.grader_ref.output_correct:
910
                self.checkB_output_pin_status.setChecked(True)
911
912
            # self.but_save_response.setDisabled(True)
913
            # self.but_save_all.setDisabled(True)
914
915
            # self.but_edit_done.setDisabled(True)
916
            try:
                # self.grader_ref.generate_response() #TODO this overwrites File not found.
917
                self.input_response_browser.setPlainText(self.grader_ref.resp_text)
918
                # self.but_edit_done.setEnabled(True)
919
                # self.but_save_response.setEnabled(True)
920
921
                # self.but_save_all.setEnabled(True)
922
            except Exception as e:
923
                print('Error in generate response:', e)
924
```

#### 7.17.3.4 check\_wrong()

## Definition at line 976 of file main.py.



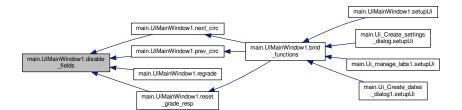
## 7.17.3.5 disable\_fields()

```
\begin{tabular}{ll} $\operatorname{def main.UiMainWindow1.disable\_fields} & $($self)$ \\ \end{tabular}
```

## Definition at line 733 of file main.py.

```
733
        def disable_fields(self):
734
             self.checkB_input_pin_status.setDisabled(True)
             self.checkB_output_pin_status.setDisabled(True)
# self.input_response_browser.setDisabled(True)
735
736
737
             self.checkB_wrong.setDisabled(True)
738
739
             # self.input_subtract.setDisabled(True)
740
             self.but_regrade.setDisabled(True)
             self.popular_answers.setDisabled(True)
741
742
             self.input_final_grade.setDisabled(True)
743
             \verb|self.checkB_wrong.setChecked(False)|\\
744
             self.check_autosave.setDisabled(True)
745
             self.input_current_id.setText('')
746
```

## Here is the caller graph for this function:



## 7.17.3.6 dummy\_d\_1()

## Definition at line 1164 of file main.py.

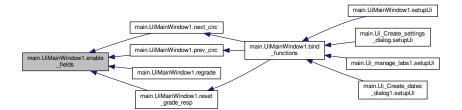
```
1164 def dummy_d_1(self):
1165 print('dummy_1 activated')
1166
```

#### 7.17.3.7 enable\_fields()

#### Definition at line 751 of file main.py.

```
def enable_fields(self):
751
752
            self.checkB_input_pin_status.setEnabled(True)
753
            \verb|self.checkB_output_pin_status.setEnabled(True)|\\
754
            # self.input_response_browser.setEnabled(True)
755
            self.checkB\_wrong.setEnabled(True)
756
            self.input_final_grade.setEnabled(True)
757
            self.check_autosave.setEnabled(True)
758
759
            # self.input_subtract.setEnabled(True)
760
            # self.but_regrade.setEnabled(True)
761
            self.popular_answers.setEnabled(True)
762
```

Here is the caller graph for this function:



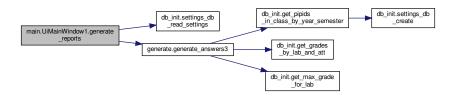
## 7.17.3.8 generate\_reports()

```
\begin{tabular}{ll} \tt def main.UiMainWindow1.generate\_reports & \\ & self \end{tabular} \label{eq:self}
```

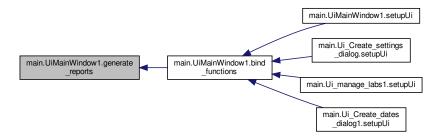
## Definition at line 1241 of file main.py.

```
1241
         def generate_reports(self):
1242
             self.but_create_report.setDisabled(True)
1243
             self.but_create_report.setText('Generating..')
1244
             self.but_create_report.repaint()
1245
             # from generate import generate_answers
             # (resubmit_num, dir_name, lab_type, lab_num)
1246
             if hasattr(self, 'grader_ref'):
1247
1248
                 loc_settings = settings_db_read_settings()[1]
1249
                 generate_answers3(self.grader_ref.lid, self.grader_ref.attempt, self.
      grader_ref.year, self.grader_ref.semester)
1250
                 # generate_answers(self.grader_ref.attempt, self.grader_ref.working_dir,
       self.grader_ref.lab_type, self.grader_ref.lab_num, loc_settings[1], loc_settings[2], self.grader_name)
1251
                 # generate_answers2(self.grader_ref.attempt, self.grader_ref.working_dir,
       self.grader_ref.lab_type, self.grader_ref.lab_num, loc_settings[1], loc_settings[2], self.grader_name)
1252
                 self.but_create_report.setEnabled(True)
1253
                 self.but_create_report.setText('Create reports')
1254
1255
1256
```

Here is the call graph for this function:



Here is the caller graph for this function:



## 7.17.3.9 kill\_logisim()

## Definition at line 1216 of file main.py.

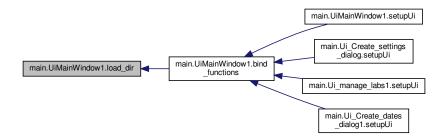
```
1216 def kill_logisim(self):
1217 try:
1218 self.grader_ref.logisim_pid.kill()
1219 except Exception as e:
1220 print("was not able to kill: ", e)
1221
```



## 7.17.3.10 load\_dir()

#### Definition at line 767 of file main.py.

```
767
        def load_dir(self):
768
            # activate elements
769
            cur_year, cur_sem = self.grader_ref.working_dir.split('/')[-3].split('_')
770
            self.class_id_to_id = get_ids_in_class_by_year_semester(cur_year,
      cur_sem)[1]
771
            self.but_begin.setDisabled(True)
772
            self.but_begin.repaint()
773
            self.progressBar.setEnabled(True)
775
            self.disable_fields()
776
777
            self.grader_ref.tot_elem = len(self.grader_ref.lab_paths)
778
            if self.grader_ref.tot_elem > 1:
779
                self.but_next.setEnabled(True)
780
781
            self.progressBar.setMaximum(self.grader_ref.tot_elem)
782
            self.progressBar.setValue(0)
783
            self.popular_answers.clear()
784
            # self.grader_ref.check_file(0)
785
            # self.grader_ref.stud_id = self.grader_ref.stud_ids[self.grader_ref.cur_idx]
786
            self.grader_ref.cur_idx = -1
787
            # graded = self.grader_ref.read_resp2()
788
789
            # if graded:
                  self.grader_ref.read_prev_resp2()
790
791
            self.next_circ()
792
            # self.grader_ref.read_resp()
793
            # self.grader_ref.read_prev_resp()
794
            # self.show_stat()
795
            # self.check_file()
796
            # self.input_current_id.setPlainText(self.grader_ref.get_stud_id())
797
798
            self.enable_fields()
799
            self.input_response_browser_user.setEnabled(True)
800
            self.but_regrade.setText('GRADE')
801
            self.but_save_all.setEnabled(True)
802
            self.but_save_response.setEnabled(True)
803
            self.check_autosave.setEnabled(True)
804
            self.but_reset.setEnabled(True)
805
```



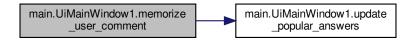
## 7.17.3.11 memorize\_user\_comment()

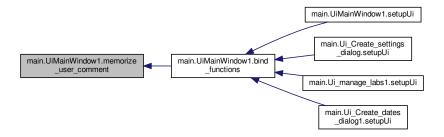
```
\label{lem:comment} \mbox{def main.UiMainWindowl.memorize\_user\_comment (} \\ self \mbox{)}
```

Definition at line 1191 of file main.py.

```
1191
         def memorize_user_comment(self):
1192
             typed = self.input_response_browser_user.toPlainText()
1193
             if hasattr(self, 'grader_ref') and typed:
1194
                      index = self.popular_answers.findText(self.input_response_browser_user.toPlainText(),
1195
1196
                                                              QtCore.Qt.MatchFixedString)
1197
                      if index >= 0:
1198
                          self.popular_answers.setCurrentIndex(index)
                      else:
1199
1200
                          self.grader_ref.add_to_common_answers(typed)
                          self.update_popular_answers()
index = self.popular_answers.findText(self.input_response_browser_user.toPlainText(),
1201
1202
1203
                                                                  QtCore.Qt.MatchFixedString)
1204
1205
                              self.popular_answers.setCurrentIndex(index)
1206
                          except Exception as e:
                              print ('Failed to select proper index: ', e)
1207
1208
1209
                 except Exception as e:
                      print('failed to add popular answer: ', e)
1210
1211
```

Here is the call graph for this function:





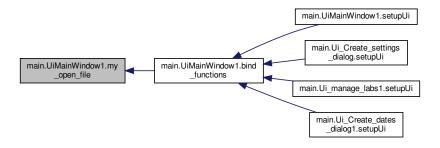
```
7.17.3.12 my_open_file()
```

#### Definition at line 812 of file main.py.

```
812
        def my_open_file(self):
813
            working_dir = self.input_file_location.text()
814
            # self.input_response_browser.clear()
815
            # self.input_response_browser_user.clear()
            \verb|self.input_response_browser.setPlainText('I did not find any errors. Good job!')| \\
816
817
            grader_name = settings_db_read_settings()[1][0]
818
            self.current_tz = QDateTime.currentDateTime().timeZoneAbbreviation()
819
820
821
                my_grader = Grader(working_dir, grader_name)
822
                my_grader.open_dir()
823
824
                self.grader_ref = my_grader
825
826
                self.input_max_pos_grade.setText(str(my_grader.lab_max_grade))
827
                self.input_attempt.setText(str(my_grader.attempt))
828
                \verb|self.dateTimeEdit_from.setDateTime(my_grader.time_from_qt)|\\
829
                self.dateTimeEdit_to.setDateTime(my_grader.time_to_qt)
830
                self.grader_ref.add_to_common_answers('')  # helps to remove all text in user comment section
831
                # QDateTime.currentDateTime().timeZone()
832
                # global MAIN_FILE_NAME, MAIN_FILE_NAME_OVERRIDE
833
834
                # MAIN_FILE_NAME = get_lab_filename(my_grader.lab_id)[0]
835
                # if not MAIN_FILE_NAME:
836
                       # Old way, I was determining filename as the most common submitted file.
                       if not MAIN_FILE_NAME_OVERRIDE:
837
838
                          a = []
839
                           for root, dirs, files in os.walk(working_dir):
840
                               for file in files:
841
                                   if file.endswith(".circ"):
842
                                       a.append(file)
843
                           a = np.array(a)
844
845
                          MAIN_FILE_NAME = Counter(a.flat).most_common(1)[0][0]
846
                      else:
847
                          MAIN_FILE_NAME = MAIN_FILE_NAME_OVERRIDE
                       # Now I can just read it from DB
848
849
                # self.grader_ref.circ_file_name = MAIN_FILE_NAME
850
851
                self.filename_lineEdit.setText(self.grader_ref.circ_file_name.split('.')[0])
                # self.reset_grade_resp()
852
                self.but_save_all.setChecked(False)
853
854
855
                self.but create report.setEnabled(True)
856
                self.but_begin.setEnabled(True)
857
858
            except Exception as e: # TODO add log error
                print('Error in open_file : ', e)
859
860
                print(sys.exc_info()[0])
861
```



Here is the caller graph for this function:

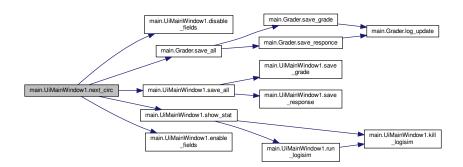


## 7.17.3.13 next\_circ()

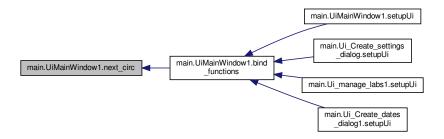
```
\begin{tabular}{ll} \tt def main.UiMainWindowl.next\_circ ( \\ self ) \end{tabular}
```

## Definition at line 932 of file main.py.

```
932
        def next_circ(self):
933
            self.disable_fields()
934
            self.but_regrade.setText('GRADE')
935
            if self.check_autosave.isChecked() and self.grader_ref.cur_idx >= 0:
936
                self.save_all()
937
                  self.check_autosave.setDisabled(True)
939
            next_idx = self.grader_ref.next_circ()
940
            # self.check_file()
941
            self.show_stat()
            if next_idx >= self.grader_ref.tot_elem-1:
943
                self.but_next.setDisabled(True)
944
            if next_idx == 1:
945
                self.but_prev.setEnabled(True)
946
947
            self.progressBar.setValue(next_idx)
948
            self.enable_fields()
```



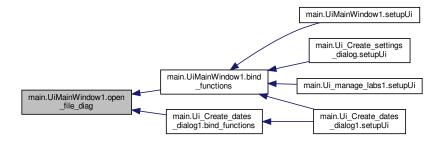
Here is the caller graph for this function:



## 7.17.3.14 open\_file\_diag()

```
\label{local_def} \begin{array}{ll} \operatorname{def \ main.UiMainWindowl.open\_file\_diag} \ ( \\ & self \ ) \end{array}
```

Definition at line 1180 of file main.py.



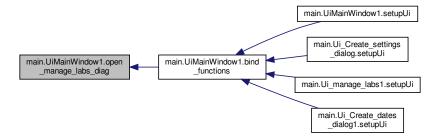
## 7.17.3.15 open\_manage\_labs\_diag()

```
\label{lem:condition} \mbox{ def main.UiMainWindow1.open\_manage\_labs\_diag (} \\ self \mbox{ )}
```

#### Definition at line 1315 of file main.py.

```
1315
         def open_manage_labs_diag(self):
1316
             self.manage_labs_but.setDisabled(True)
1317
             self.manage_labs_but.repaint()
1318
             self.centralwidget.setDisabled(True)
1319
             self.centralwidget.repaint()
1320
             self.manage_labs_window = QtWidgets.QDialog()
1321
             dui = Ui_manage_labs1()
1322
             dui.setupUi(self.manage_labs_window)
1323
1324
             self.manage_labs_window.show()
1325
             self.manage_labs_window.exec_()
1326
1327
             self.centralwidget.setEnabled(True)
1328
             self.manage_labs_but.setEnabled(True)
1329
1330
             if not self.but_file_open.isEnabled():
1331
                 paths, local = settings_db_read_settings()
1332
                 # if there are some labs in server sync directory:
1333
                 if len(os.walk(get_full_path(paths, local) + "/server_sync/").__next__()[1]) > 0:
1334
                     self.but_file_open.setEnabled(True)
                     self.input_file_location.setEnabled(True)
1337
```

Here is the caller graph for this function:



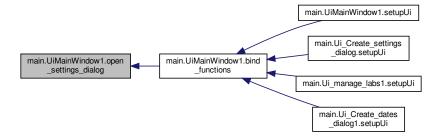
#### 7.17.3.16 open\_settings\_dialog()

```
\begin{tabular}{ll} $\operatorname{def main.UiMainWindowl.open\_settings\_dialog} & ( \\ & self \end{tabular} ) \end{tabular}
```

#### Definition at line 1285 of file main.py.

```
1285
         def open_settings_dialog(self):
1286
             self.settings_but.setDisabled(True)
1287
             self.settings_but.repaint()
             self.settings_window = QtWidgets.QDialog()
1288
1289
             dui = Ui_Create_settings_dialog()
1290
             dui.setupUi(self.settings_window)
1291
1292
             self.centralwidget.setDisabled(True)
1293
             self.centralwidget.repaint()
1294
1295
             self.settings_window.show()
1296
             self.settings_window.exec_()
1297
1298
             self.sync_params_to_settings()
1299
             self.centralwidget.setEnabled(True)
1300
1301
             self.settings_but.setEnabled(True)
1302
1303
             if not self.manage_labs_but.isEnabled():
1304
                 from pathlib import Path
1305
                 settings_location = str(Path(os.path.expandvars(os.path.expandvarr('./settings.sqlite3'))).
      absolute())
1306
                 if os.path.isfile(settings location):
1307
                     self.manage_labs_but.setEnabled(True)
1308
1309
```

Here is the caller graph for this function:

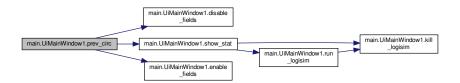


## 7.17.3.17 prev\_circ()

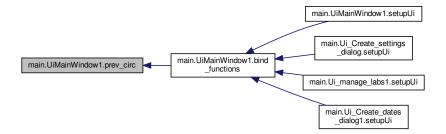
## Definition at line 957 of file main.py.

```
957
        def prev_circ(self):
958
             self.disable_fields()
959
             self.but_regrade.setText('GRADE')
960
             next_idx = self.grader_ref.prev_circ()
961
             # self.check_file()
962
             self.show stat()
963
             if next_idx <= self.grader_ref.tot_elem-1:</pre>
            self.but_next.setEnabled(True)
if next_idx == 0:
964
965
                 self.but_prev.setDisabled(True)
966
967
             self.progressBar.setValue(next_idx)
968
969
             self.enable_fields()
970
```

Here is the call graph for this function:



Here is the caller graph for this function:



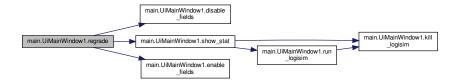
## 7.17.3.18 regrade()

```
\begin{tabular}{ll} $\operatorname{def main.UiMainWindow1.regrade} & ( \\ & self \end{tabular} \label{eq:self}
```

Definition at line 988 of file main.py.

```
988
          def regrade(self):
989
                self.disable_fields()
               self.but_regrade.setText('regrade')
# if self.lab_num > 8 and self.lab_type == 'Closed':
# self.precheck_PLDs(i, cur_path)
990
991
992
993
                self.show_stat()
994
                # self.grader_ref.check_file()
                # if self.grader_ref.check_circ_exist():
# self.check_file()
995
996
997
                \verb|self.input_response_browser.setPlainText(self.grader_ref.resp_text)|\\
998
                self.enable_fields()
999
```

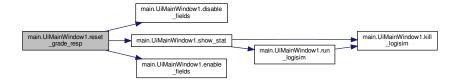
Here is the call graph for this function:



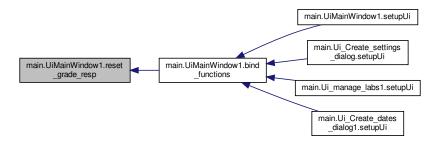
## 7.17.3.19 reset\_grade\_resp()

Definition at line 1004 of file main.py.

```
1004
         def reset_grade_resp(self):
1005
             self.disable_fields()
1006
             self.show_stat()
1007
             # self.grader_ref.check_file()
1008
             # if self.grader_ref.check_circ_exist():
1009
            if self.grader_ref.lab_num > 8 and self.grader_ref.lab_type == 'Closed':
1010
                self.grader_ref.final_grade, report = self.grader_ref.precheck_PLDs(self.grader_ref.cur_idx)
1011
                self.input_response_browser.setPlainText(report)
1012
            else:
1013
                self.grader_ref.final_grade = self.grader_ref.lab_max_grade
1014
                 self.input_response_browser.setPlainText('I did not find any errors. Good job!')
1015
1016
             self.input_final_grade.setText(str(self.grader_ref.final_grade))
            self.enable_fields()
1017
1018
```

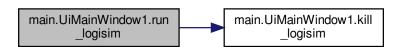


Here is the caller graph for this function:



## 7.17.3.20 run\_logisim()

Definition at line 1228 of file main.py.



Here is the caller graph for this function:



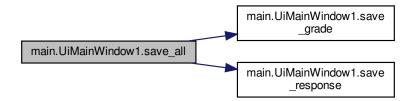
#### 7.17.3.21 save\_all()

```
\begin{tabular}{ll} $\operatorname{def main.UiMainWindow1.save\_all} & ( \\ & self \end{tabular} \label{eq:self}
```

## Definition at line 1053 of file main.py.

```
1053     def save_all(self):
1054         self.grader_ref.save_grade()
1055         # self.grader_ref.save_responce()
1056         self.save_response()
1057         self.grader_ref.save_all2()
1058
```

Here is the call graph for this function:





## 7.17.3.22 save\_grade()

```
\begin{tabular}{ll} $\operatorname{def main.UiMainWindow1.save\_grade} & ( \\ & self \end{tabular} ) \label{eq:self}
```

## Definition at line 1035 of file main.py.

```
1035 def save_grade(self):
1036 self.grader_ref.save_grade()
1037
```

Here is the caller graph for this function:



## 7.17.3.23 save\_response()

```
\begin{tabular}{ll} $\operatorname{def main.UiMainWindow1.save\_response} & ( \\ & self \end{tabular} \label{eq:self}
```

## Definition at line 1043 of file main.py.

```
def save_response(self):
    self.grader_ref.resp_text = self.input_response_browser.toPlainText()
    self.grader_ref.user_comment = self.input_response_browser_user.toPlainText()
    self.grader_ref.save_responce()
    self.grader_ref.save_responce()
```

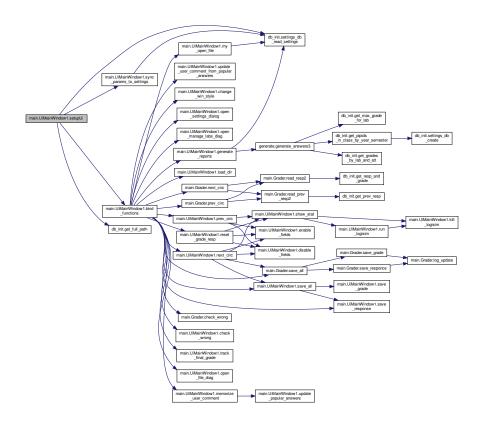


#### 7.17.3.24 setupUi()

#### Definition at line 1076 of file main.py.

```
1076
         def setupUi(self, main_window):
1077
             super().setupUi(main_window)
1078
1079
             self.bind_functions()
1080
             self.sync_params_to_settings()
1081
1082
             from pathlib import Path
1083
             settings_location = str(Path(os.path.expandvars(os.path.expanduser('./settings.sqlite3'))).absolute
      ())
1084
             if os.path.isfile(settings_location):
1085
                 paths, local = settings_db_read_settings()
1086
1087
                     if len(os.walk(get_full_path(paths, local) + "/server_sync/").__next__()[1]) >
1088
                         if not self.manage_labs_but.isEnabled():
1089
                             self.manage_labs_but.setEnabled(True)
1090
                         if not self.but_file_open.isEnabled():
1091
                             self.but_file_open.setEnabled(True)
1092
                             self.input_file_location.setEnabled(True)
1093
                 except Exception as e:
1094
                     print("Most likely you did not fill all the settings: ", e)
1095
1096
```

#### Here is the call graph for this function:



#### 7.17.3.25 show\_stat()

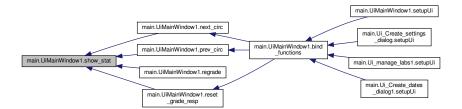
#### Definition at line 867 of file main.py.

```
867
        def show_stat(self):
868
            self.input_prev_response.setPlainText(self.grader_ref.previous_responses)
869
            file_path = os.path.join(self.grader_ref.lab_paths[self.grader_ref.cur_idx], self.grader_ref.
      circ_file_name)
870
            if not Path(file_path).is_file():
871
                self.kill_logisim()
872
                self.grader_ref.final_grade = 0
873
                self.input_response_browser.setPlainText('File does not exist.')
874
                self.grader_ref.final_grade = 0
875
876
                if self.but_regrade.text() == '&GRADE' or self.but_regrade.text() == 'GRADE':
877
                    try:
878
                        self.run_logisim(file_path)
879
                    except Exception as e:
                        print('Error in run_logisim: ', e)
880
                        print(sys.exc_info()[0])
881
882
883
            self.input_current_id.setText(self.class_id_to_id[self.grader_ref.get_stud_id()])
884
            self.dateTimeEdit_submitted.setDateTime(QDateTime.fromSecsSinceEpoch(self.grader_ref.timestamps[
      self.grader_ref.cur_idx]))
885
            self.input_subtract.setText('')
            self.input_final_grade.setText(str(self.grader_ref.final_grade))
886
887
            self.input_log_browser.setText(self.grader_ref.global_log)
            self.input_response_browser.setPlainText(self.grader_ref.resp_text)
888
889
            self.input_response_browser_user.setPlainText(self.grader_ref.user_comment)
890
            self.checkB_input_pin_status.setChecked(False)
891
            self.checkB_output_pin_status.setChecked(False)
892
            self.popular_answers.setCurrentIndex(-1)
893
```

Here is the call graph for this function:



Here is the caller graph for this function:



#### 7.17.3.26 sync\_params\_to\_settings()

```
\label{lem:condition} \mbox{def main.UiMainWindowl.sync\_params\_to\_settings (} \\ self \mbox{)}
```

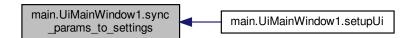
Definition at line 1101 of file main.py.

```
def sync_params_to_settings(self):
   paths, local = settings_db_read_settings()
   working_dir = ''
1102
1103
               if paths and len(paths) == 4:
1105
                    self.logisim_path = paths[0]
1106
                    if len(paths[1]) > 0:
                        working_dir = paths[1]
1107
1108
                   else:
1109
                        working_dir = './'
              if local and len(local) >= 4:
1110
1111
                   self.grader_name = local[0]
                   working_dir += str(local[1])
working_dir += '_' + local[2] + '/'
1112
1113
1114
                   self.set_style_checkbox.setChecked(bool(local[3]))
1115
               if len(working_dir) > 0:
1116
                    self.input_file_location.setText(os.path.expanduser(working_dir))
1117
1118
1119
```

Here is the call graph for this function:



Here is the caller graph for this function:



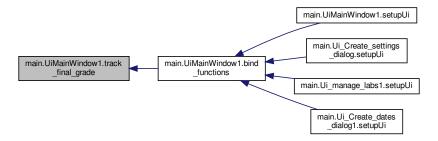
#### 7.17.3.27 track\_final\_grade()

```
\begin{tabular}{ll} $\operatorname{def main.UiMainWindowl.track\_final\_grade} & \\ & self \end{tabular} \label{eq:self}
```

#### Definition at line 1063 of file main.py.

```
def track_final_grade(self):
    grade = self.input_final_grade.text()
    self.grader_ref.log_update('Manual grade change from : ' + str(self.grader_ref.final_grade))
    self.input_log_browser.setText(self.grader_ref.global_log)
    self.grader_ref.final_grade = int(grade)
    self.grader_ref.log_update('Manual grade change to: ' + str(grade))
    self.grader_ref.log_update('Manual grade change to: ' + str(grade))
    self.input_log_browser.setText(self.grader_ref.global_log)
```

Here is the caller graph for this function:



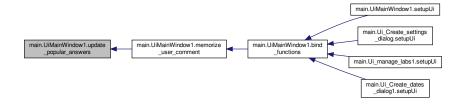
#### 7.17.3.28 update\_popular\_answers()

```
\label{lem:defmain.UiMainWindow1.update_popular_answers (} self \ )
```

#### Definition at line 1024 of file main.py.

```
def update_popular_answers(self):
    if len(self.popular_answers) != len(self.grader_ref.input_suggestion):
        self.popular_answers.clear()
        self.popular_answers.addItems(self.grader_ref.input_suggestion)
        # for item in self.grader_ref.input_suggestion:
```

Here is the caller graph for this function:

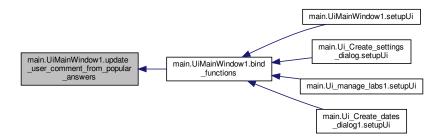


#### 7.17.3.29 update\_user\_comment\_from\_popular\_answers()

```
\label{lem:comment_from_popular_answers} \mbox{ def main.UiMainWindow1.update\_user\_comment\_from\_popular\_answers (} \\ self \mbox{ )}
```

Definition at line 1171 of file main.py.

Here is the caller graph for this function:



#### 7.17.4 Member Data Documentation

# 7.17.4.1 cal\_window main.UiMainWindow1.cal\_window Definition at line 724 of file main.py. 7.17.4.2 class\_id\_to\_id main.UiMainWindow1.class\_id\_to\_id Definition at line 770 of file main.py. 7.17.4.3 current\_tz main.UiMainWindow1.current\_tz Definition at line 818 of file main.py. 7.17.4.4 grader\_name main.UiMainWindow1.grader\_name Definition at line 1111 of file main.py. 7.17.4.5 grader\_ref main.UiMainWindow1.grader\_ref Definition at line 723 of file main.py. 7.17.4.6 logisim\_path main.UiMainWindow1.logisim\_path

Definition at line 1105 of file main.py.

7.17.4.7 manage\_labs\_window

main.UiMainWindowl.manage\_labs\_window

Definition at line 1320 of file main.py.

7.17.4.8 settings\_window

main.UiMainWindow1.settings\_window

Definition at line 1288 of file main.py.

7.17.4.9 working\_dir

main.UiMainWindow1.working\_dir

Definition at line 725 of file main.py.

The documentation for this class was generated from the following file:

• main.py

## **Chapter 8**

## **File Documentation**

8.1 create\_dates\_diag.py File Reference

#### Classes

• class create\_dates\_diag.Ui\_Create\_dates\_dialog

#### **Namespaces**

· create\_dates\_diag

## 8.2 dates\_window.py File Reference

#### Classes

• class dates\_window.Ui\_dates\_window

## **Namespaces**

· dates\_window

## 8.3 db\_init.py File Reference

## **Namespaces**

• db\_init

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#### **Functions**

- def db init.settings db create (db name=SETTINGS DB NAME, force=False)
- def db\_init.settings\_db\_read\_settings (db\_name=SETTINGS\_DB\_NAME)
- def db\_init.update\_settings (paths, local, db\_name=SETTINGS\_DB\_NAME)
- def db init.grades db create (db name, force=False)
- · def db init.load student list into grades db (db name, year, semester, filename='students list3.txt')
- def db init.insert students (ids, fname, lname, db name='./grades.sqlite3')
- def db\_init.register\_students\_in\_class (pipeline\_ids, year, semester, db\_name='./grades.sqlite3')
- def db init.get pipeline ids (db name='./grades.sglite3')
- def db\_init.get\_ids\_in\_class\_by\_year\_semester (year, semester, db\_name='./grades.sqlite3')
- def db init.import previous grades into db (year, semester, db name='./grades.sqlite3', filename='./grades.xls')
- def db\_init.gen\_filenotfound\_resp (lab\_id, stud\_path, corr\_file, grader, att=None, next\_date=None, db\_
   —
   name='./grades.sqlite3')
- def db\_init.get\_resp\_and\_grade (grade\_id, db\_name='./grades.sqlite3')
- def db\_init.get\_prev\_resp (grade\_id, class\_id, lab\_id, db\_name='./grades.sqlite3')
- def db\_init.save\_a\_grade\_to\_db (grade\_id, grade, grader\_comment, extra\_comment, grader\_name, graded=True, pass fail=True, db name='./grades.sqlite3')
- def db\_init.init\_new\_lab (stud\_id, lab\_name, att, submitted, lab\_path, db\_name='./grades.sqlite3')
- def db\_init.get\_lab\_names (db\_name='./grades.sqlite3')
- def db\_init.update\_lab\_submissions\_paths (db\_name, repository\_root, year, semester)
- def db\_init.get\_empty\_grades\_by\_lid (lab\_id, att, db\_name='./grades.sqlite3')
- def db\_init.get\_all\_grades\_by\_lid (lab\_id, att, db\_name='./grades.sqlite3')
- def db init.reconstruct grades and comments (db name='./grades.sqlite3')
- def db\_init.generate\_final\_grades (db\_name, year, semester)
- def db init.get max grade for lab (lid, year, semester, db name='./grades.sglite3')
- def db\_init.get\_grades\_by\_lab\_and\_att (lid, att, db\_name='./grades.sqlite3')
- def db init.get lab filename (lab id, db name='./grades.sqlite3')
- def db\_init.get\_lab\_max\_value (lab\_id, db\_name='./grades.sqlite3')
- def db\_init.get\_full\_path (paths, local)
- def db init.sync files (self=None)
- def db init.export pdf (self=None)
- def db init.save grade and report (grade id, grade, report, user comment, grader, db name='./grades.sqlite3')
- def db\_init.commit\_gen\_report (grade\_id, db\_name='./grades.sqlite3')
- def db init.get lab id (ltype, lab num)
- def db init.register lab in semester (ltype, lab num, year, semester, due dates, db name='./grades.sqlite3')
- def db init.get labid in schedule (lid, year, semester, db name='./grades.sqlite3')
- def db\_init.get\_due\_date\_by\_labid (lid\_sem, att=None, db\_name='./grades.sqlite3')
- def db\_init.get\_import\_dates\_by\_labid (lid\_sem, att=None, db\_name='./grades.sqlite3')
- def db init.gen report (lid sem, att=None, db name='./grades.sqlite3')
- · def db init.get pipids in class by year semester (year, semester, db name='./grades.sqlite3')

## Variables

string db init.SETTINGS DB NAME = 'settings.sqlite3'

## 8.4 generate.py File Reference

#### **Namespaces**

· generate

#### **Functions**

- def generate.convert\_to\_pdf (html\_file, func\_type)
- def generate.create\_html\_pdf\_report2 (lab\_dict)

Creates nice html report for submitted labs and converts it to pdf format.

- def generate.create\_html\_pdf\_zero\_report (filename, stud\_name, top\_part, bot\_part)
- def generate.create\_not\_submitted (stud\_id, lab\_type, lab\_num, dir\_name)
- def generate\_generate\_answers3 (lid, att, year, semester, db\_name='./grades.sqlite3')
- def generate.time\_to\_str\_with\_tz (in\_time)

## 8.5 main.py File Reference

#### **Classes**

- · class main.CircFile
- · class main.CircFile.circ type
- · class main.CircFile.PinType
- class main.Grader
- · class main.UiMainWindow1
- class main.Ui\_Create\_settings\_dialog

Creates window that provides user with convenient way of changing settings that are stored in sqlite3 db.

· class main.SimpleDialog

Wrapper class for very simple Ok Cancel dialog.

- · class main.Ui\_manage\_labs1
- class main.Ui\_Create\_dates\_dialog1

#### **Namespaces**

• main

#### **Functions**

- def main.read\_settings (db\_name='settings.sqlite3')
- def main.get\_grading\_period (lid, cur\_only=False)

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#### **Variables**

- string main.MAIN\_FILE\_NAME = "
- string main.MAIN\_FILE\_NAME\_OVERRIDE = "
- string main.styleData
- main.app = QtWidgets.QApplication(sys.argv)
- main.MainWindow = QtWidgets.QMainWindow()
- main.ui = UiMainWindow1()

## 8.6 main\_window.py File Reference

#### Classes

· class main\_window.Ui\_mainWindow

#### **Namespaces**

· main\_window

## 8.7 manage\_labs.py File Reference

#### Classes

• class manage\_labs.Ui\_manage\_labs

#### **Namespaces**

• manage\_labs

## 8.8 qt\_class\_improvements.py File Reference

#### Classes

- class qt\_class\_improvements.BetterLineEdit
- · class qt\_class\_improvements.BetterPlainTextEdit

#### **Namespaces**

· qt\_class\_improvements

## 8.9 README.md File Reference

## 8.10 settings.py File Reference

#### **Classes**

• class settings.Ui\_Settings

## **Namespaces**

settings

## 8.11 simple\_dialog.py File Reference

#### Classes

• class simple\_dialog.Ui\_Dialog

## **Namespaces**

• simple\_dialog

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