

1. Source code test_core_common.py

```
from odoo.tests import common

A class TestCoreCommon(common.SavepointCase):
    def setUp(self):
1         super(TestCoreCommon, self).setUp()
2         self.op_batch = self.env['op.batch']
3         self.op_faculty = self.env['op.faculty']
4         self.op_course = self.env['op.course']
5         self.res_company = self.env['res.users']
6         self.op_student = self.env['op.student']
7         self.hr_emp = self.env['hr.employee']
8         self.subject_registration = self.env['op.subject.registration']
9         self.op_update = self.env['publisher_warranty.contract']
10        self.employ_wizard = self.env['wizard.op.faculty.employee']
11        self.faculty_user_wizard = self.env['wizard.op.faculty']
12        self.studnet_wizard = self.env['wizard.op.student']
```

test_core.py

```
from .test_core_common import TestCoreCommon

B class TestCore(TestCoreCommon):
    def setUp(self):
13        super(TestCore, self).setUp()

    def test_case_1_batch(self):
14        batchs = self.op_batch.search([])

15        for batch in batchs:
16            batch.check_dates()
17            batch.name_search('B0A-S1')

    def test_case_2_course(self):
18        courses = self.op_course.search([])

19        for course in courses:
20            course.get_import_templates()

    def test_case_3_faculty(self):
21        faculty = self.op_faculty.search([])
```

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22     new_faculty = self.op_faculty.create({
        'partner_id': self.env.ref('openeducat_core.op_res_partner_30').id,
        'first_name': 'binapshah',
        'last_name': 'kalol',
        'birth_date': '2009-01-01',
        'gender': 'male',
    })

23     new_faculty._onchange_name()

24     for rec in faculty:
25         rec._check_birthdate()
26         rec._onchange_name()
27         rec.create_employee()
28         rec.get_import_templates()

    def test_case_4_hr_employe(self):
29         employs = self.hr_emp.search([])

30         for employ in employs:
31             employ.onchange_user()
33             employ.onchange_address_id()

    def test_case_5_res_company(self):
34         users = self.res_company.search([])
35         record = self.env.ref('openeducat_core.op_faculty_1'),
        users.create_user(record)

    def test_case_6_student(self):
36         students = self.op_student.search([])

37         vals = {
            'first_name': 'nikul',
            'middle_name': 'm',
            'last_name': 'ahir',
            'birth_date': '1999-01-01',
            'gender': 'm',
            'partner_id': self.env.ref('openeducat_core.op_res_partner_14').id
        }

38         new_student = self.op_student.create(vals)
39         for student in students:
40             student._onchange_name()
41             student._check_birthdate()
42             student.get_import_templates()
43             new_student.create_student_user()

    def test_case_7_subject_registartion(self):
44         vals = {
            'student_id': self.env.ref('openeducat_core.op_student_1').id,
            'course_id': self.env.ref('openeducat_core.op_course_2').id,
            'batch_id': self.env.ref('openeducat_core.op_batch_1').id,
        }

45         registrations = self.subject_registration.create(vals)

46         for registration in registrations:
47             registration.action_reset_draft()
48             registration.action_reject()
49             registration.action_approve()
50             registration.action_submitted()
51             registration.get_subjects()

```

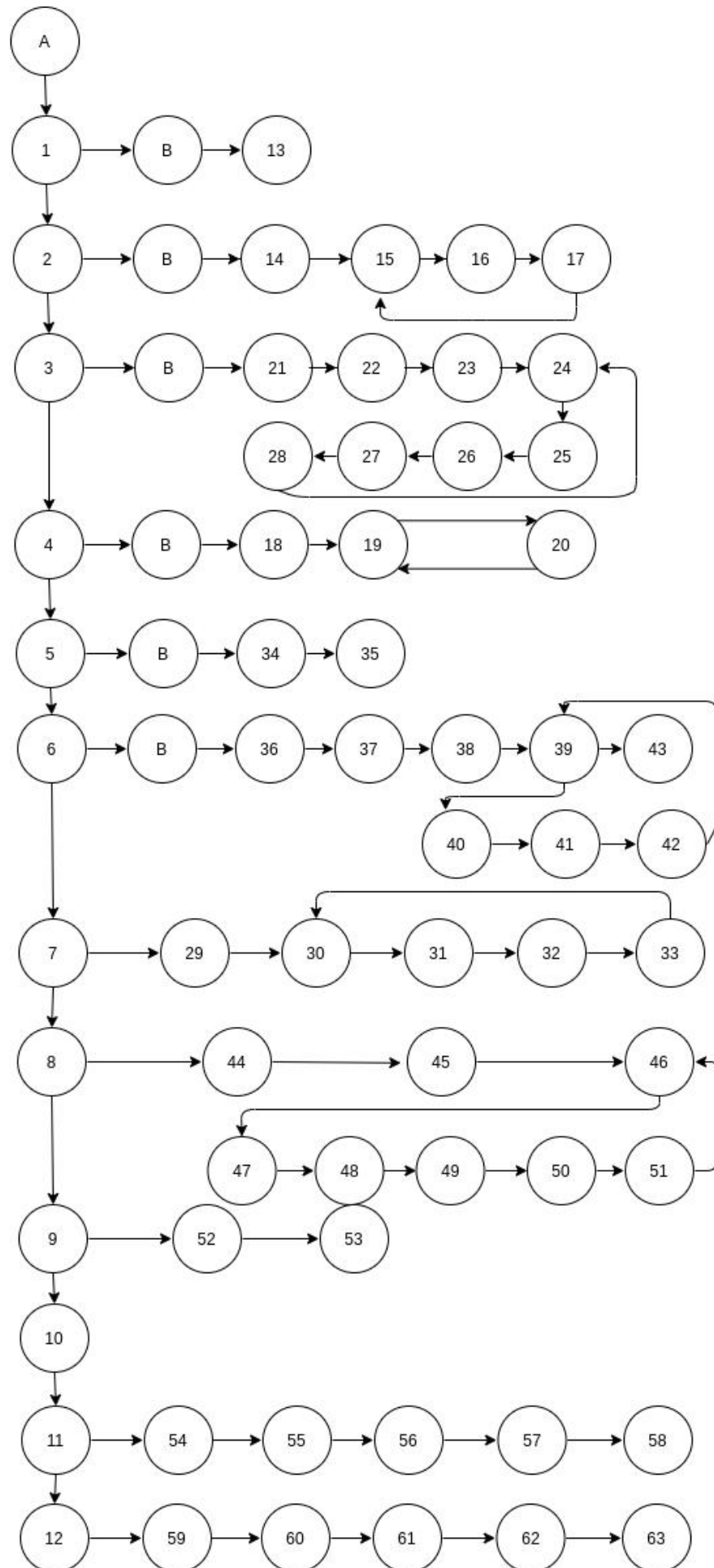
```
def test_case_8_update(self):
52     self.op_update._get_message()
53     self.op_update.update_notification(cron_mode=True)

def test_case_9_faculty_user_wizard(self):

54     faculty_id = self.env.ref('openeducat_core.op_faculty_2')
55     vals = {'faculty_ids': [(6, 0, [faculty_id.id])]}
56     faculty = self.faculty_user_wizard.create(vals)
57     faculty._get_faculties()
58     faculty.create_faculty_user()

def test_case_10_studnet_wizard(self):
59     student_id = self.env.ref('openeducat_core.op_student_1')
60     vals = {'student_ids': [(6, 0, [student_id.id])]}
61     student = self.studnet_wizard.create(vals)
62     student._get_students()
63     student.create_user()
```

2. FlowGraph



3. Cyclometric Complex

$$\begin{aligned} V(G) &= E - N + 2 \\ &= 75 - 63 + 2 \\ &= 14 \end{aligned}$$