

ITP4115 Cloud Web Application Development

Skill Test Answer Sheet

Name:

Student ID:

Q1.

```
● @RW0NG722 → /workspaces/itp4115-ay2425-skill-test-set-b-v2-RW0NG722 (set_B) $ pip install flask_migrate
Defaulting to user installation because normal site-packages is not writeable
Collecting flask_migrate
  Downloading Flask_Migrate-4.1.0-py3-none-any.whl (21 kB)
Requirement already satisfied: Flask>=0.9 in /usr/local/lib/python3.11/site-packages (from flask_migrate
(3.1.0)
Requirement already satisfied: Flask-SQLAlchemy>=1.0 in /usr/local/lib/python3.11/site-packages (from fl
```

Q2.

```
● @RW0NG722 → /workspaces/itp4115-ay2425-skill-test-set-b-v2-RW0NG722 (set_B) $ pip install flask_mail
Defaulting to user installation because normal site-packages is not writeable
Collecting flask_mail
  Downloading flask_mail-0.10.0-py3-none-any.whl (8.5 kB)
Requirement already satisfied: flask in /usr/local/lib/python3.11/site-packages (from flask_mail) (3.1.0)
Requirement already satisfied: blinker in /usr/local/lib/python3.11/site-packages (from flask_mail) (1.9
```

Q3.

```
● @RW0NG722 → /workspaces/itp4115-ay2425-skill-test-set-b-v2-RW0NG722 (set_B) $ pip install -r requirement
txt
Defaulting to user installation because normal site-packages is not writeable
Requirement already satisfied: alembic==1.15.1 in /usr/local/lib/python3.11/site-packages (from -r requi
ments.txt (line 1)) (1.15.1)
Requirement already satisfied: babel==2.17.0 in /usr/local/lib/python3.11/site-packages (from -r require
```

Q4.

```
return render_template('register.html.j2', title=_('Register'), form=form)
```

Q5.

```

@RW0NG722 → /workspaces/itp4115-ay2425-skill-test-set-b-v2-RW0NG722 (set_B) $ flask db migrate -m "Q5"
INFO [alembic.runtime.migration] Context impl PostgresqlImpl.
INFO [alembic.runtime.migration] Will assume transactional DDL.
ERROR [flask_migrate] Error: Target database is not up to date.
● @RW0NG722 → /workspaces/itp4115-ay2425-skill-test-set-b-v2-RW0NG722 (set_B) $ flask db upgrade
INFO [alembic.runtime.migration] Context impl PostgresqlImpl.
INFO [alembic.runtime.migration] Will assume transactional DDL.
INFO [alembic.runtime.migration] Running upgrade -> f68f49ab749a, empty message
INFO [alembic.runtime.migration] Running upgrade f68f49ab749a -> 77c890b48e1a, empty message

```

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Profile Logout

Hi, [REDACTED]!

Say something

Submit

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Q6.

```

● @RW0NG722 → /workspaces/itp4115-ay2425-skill-test-set-b-v2-RW0NG722 (set_B) $ python user.py
○ @RW0NG722 → /workspaces/itp4115-ay2425-skill-test-set-b-v2-RW0NG722 (set_B) $ █

```

```
current_user.follow(user)
```

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Profile Logout

You are following kitson!



User: kitson

Last seen on: April 15, 2025 10:03 AM

1 followers, 0 following

[Unfollow](#)

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Older posts →

Q7.

```
@app.route('/reset_password_request', methods=['GET', 'POST'])
def reset_password_request():
    if current_user.is_authenticated:
        return redirect(url_for('index'))
    form = ResetPasswordRequestForm()
    if form.validate_on_submit():
        user = User.query.filter_by(email=form.email.data).first()
```

TemplateNotFound

jinja2.exceptions.TemplateNotFound: 505_NOT_FOUND.html.j2

Traceback (most recent call last)

```
File "/usr/local/lib/python3.11/site-packages/flask/app.py", line 1536, in __call__
    return self.wsgi_app(environ, start_response)
    ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
File "/usr/local/lib/python3.11/site-packages/flask/app.py", line 1514, in wsgi_app
    response = self.handle_exception(e)
    ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
File "/usr/local/lib/python3.11/site-packages/flask/app.py", line 1511, in wsgi_app
    response = self.full_dispatch_request()
    ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
File "/usr/local/lib/python3.11/site-packages/flask/app.py", line 919, in full_dispatch_request
    rv = self.handle_user_exception(e)
    ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
File "/usr/local/lib/python3.11/site-packages/flask/app.py", line 917, in full_dispatch_request
    rv = self.dispatch_request()
    ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
File "/usr/local/lib/python3.11/site-packages/flask/app.py", line 902, in dispatch_request
```

Q8.

```
routes.py M  reset_password_request.html.j2 2, M X
app > templates > reset_password_request.html.j2 > ...
1  {% extends "base.html.j2" %}
2  {% import 'bootstrap/wtf.html' as wtf %}
3  {% block app_content %}
4      <h1>{{ _('Reset Password') }}</h1>
5      <div class="row">
6          <div class="col-md-4">{{ wtf.quick_form(form) }}</div>
7      </div>
8  {% endblock %}
9
```

ITP4115 EA Test Home Explore Weather Login

Reset Password


Email

Request Password Reset

Q9.

```
def edit_profile():  
    form = EditProfileForm(current_user.username)  
    if form.validate_on_submit():  
        current_user.username = form.username.data  
        current_user.about_me = form.about_me.data  
        db.session.commit()  
        flash(_('Your changes have been saved.'))  
        return redirect(url_for('edit_profile'))  
    elif request.method == 'GET':
```

ITP4115 EA Test Home Explore Weather Profile Logout



User:
Last seen on: April 15, 2025 10:15 AM
0 followers, 0 following
[Edit your profile](#)

← Newer posts Older posts →

Q10.

```
def __init__(self, original_username, *args, **kwargs):
    super(EditProfileForm, self).__init__(*args, **kwargs)
    self.original_username = original_username
```

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Edit Profile

Username

About me

Q11.

```
posts = Post.query.order_by(Post.timestamp.desc()).paginate(
    page=int(page), per_page=app.config["POSTS_PER_PAGE"], error_out=False)
```

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Hi, !



kitson said 14 minutes ago
e



kitson said 14 minutes ago
d



kitson said 14 minutes ago
c

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Q12.

```
class Post(db.Model):
    id = db.Column(db.Integer, primary_key=True)
    body = db.Column(db.String(100))
    timestamp = db.Column(db.DateTime, index=True, default=datetime.utcnow)
    user_id = db.Column(db.Integer, db.ForeignKey('user.id'))
```

```
def __repr__(self) -> str:
    return f'<Post {self.body}>'
```

```
● @RWONG722 → /workspaces/itp4115-ay2425-skill-test-set-b-v2-RWONG722 (set_B) $ flask db migrate -m "Q12"
INFO [alembic.runtime.migration] Context impl PostgresqlImpl.
INFO [alembic.runtime.migration] Will assume transactional DDL.
INFO [alembic.ddl.postgresql] Detected sequence named 'post_id_seq' as owned by integer column 'post(id)', assuming SERIAL and omitting
INFO [alembic.autogenerate.compare] Detected type change from VARCHAR(length=1) to String(length=100) on 'post.body'
Generating /workspaces/itp4115-ay2425-skill-test-set-
```

```
● @RWONG722 → /workspaces/itp4115-ay2425-skill-test-set-b-v2-RWONG722 (set_B) $ flask db upgrade
INFO [alembic.runtime.migration] Context impl PostgresqlImpl.
INFO [alembic.runtime.migration] Will assume transactional DDL.
INFO [alembic.runtime.migration] Running upgrade bf0af614d24e -> c42b16a52908, Q12
```

Q13.

```
weather_data = response.json() if response.status_code == 200 else None
return render_template(
    'weather.html.j2',
    title=_('Weather'),
    weather_data=weather_data, weather=weather
)
```

?

Q14.

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Profile Logout

Bad Request

The request could not be understood or was missing required parameters.

Please check your input and try again.

[Back](#)

```
@app.errorhandler(400)
def bad_request_error(error):
    ⚡ return render_template("400.html.j2"), 400
```

Q15.

```
class User(UserMixin, db.Model):
    email = db.Column(db.String(120), index=True, unique=True)
    password_hash = db.Column(db.String(300))
    posts = db.relationship('Post', backref='author', lazy=True)
    about_me = db.Column(db.String(140))
    last_seen = db.Column(db.DateTime, default=datetime.utcnow)
    phone = db.Column(db.String(20))
    followed = db.relationship(
        'User', secondary=followers,
        primaryjoin=(followers.c.follower_id == id),
        secondaryjoin=(followers.c.followed_id == id),
        backref=db.backref('followers', lazy='dynamic'))
```

```
● @RW0NG722 → /workspaces/itp4115-ay2425-skill-test-set-b-v2-RW0NG722 (set_B) $ flask db migrate -m "Q15 Phone"
INFO [alembic.runtime.migration] Context impl PostgresqlImpl.
INFO [alembic.runtime.migration] Will assume transactional DDL.
INFO [alembic.ddl.postgresql] Detected sequence named 'user_id_seq' as owned by integer column 'user(id)', assuming SERIAL and omitting
```

```

@RWØNG722 → /workspaces/itp4115-ay2425-skill-test-set-b-v2-RWØNG722 (set_B) $ flask db upgrade
INFO [alembic.runtime.migration] Context impl PostgresqlImpl.
INFO [alembic.runtime.migration] Will assume transactional DDL.
INFO [alembic.runtime.migration] Running upgrade c42b16a52908 -> 7961195b40ec, Q15 Phone
@RWØNG722 → /workspaces/itp4115-ay2425-skill-test-set-b-v2-RWØNG722 (set_B) $

```

last_seen	phone
timestamp without time zone	character varying (20)
2025-04-15 02:03:40.332624	[null]
2025-04-15 02:35:09.536349	[null]

```

if form.validate_on_submit():
    user = User(username=form.username.data, email=form.email.data, phone=form.phone.data)

```

```

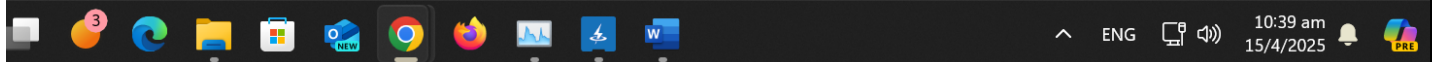
class RegistrationForm(FlaskForm):
    username = StringField(_l('Username'), validators=[DataRequired()])
    email = StringField(_l('Email'), validators=[DataRequired(), Email()])
    phone = StringField(_l('Phone'), validators=[DataRequired()])
    password = PasswordField(_l('Password'), validators=[DataRequired()])
    password2 = PasswordField(
        _l('Repeat Password'), validators=[DataRequired(), EqualTo('password')])
    submit = SubmitField(_l('Register'))

```

	about_me	last_seen	phone
	character varying (140)	timestamp without time zone	character varying (20)
1	/17eb0c41866a3612745a5a3374f86f19013aa50c5e850950f1be2984f6etb...	2025-04-15 02:03:40.332624	[null]
2	600ff210a43fc35f587a42fb32ed48cd953854ea0f192b2cb403a978e8bbfcb...	2025-04-15 02:38:15.980282	[null]
3	c59023e28f12d12ed6c402c7a062dcdf4854a22f514f5a159e5e0ce20420a3da	2025-04-15 02:39:25.327783	999999999

Total rows: 3 Query complete 00:00:00.294

CRLF Ln 2, Col 21



ITP4115 EA Test Home Explore Weather Login

Register

Username

Email

Phone

Password

Repeat Password

Register

End of paper