APCSP Create Task:

Github: https://github.com/ikoide/MagicLogger

Live Site: https://project.iankoide.dev

This code was pasted on 5/4/20. For the most updated version of the code check out the Github repository.

I did not include any database files as they are not readable although the Magic the Gathering card database can be found here https://mtgjson.com/downloads/all-files/. This site's user database as well as card collection database are stored locally on the server.

Code:

routes.py

```
import secrets
import os
from PIL import Image
from flask import render template, url for, flash, redirect, request,
abort, Markup, send from directory
from mtglogger import app, db, bcrypt
from flask login import login user, current user, logout user,
login required
from mtglogger.forms import SearchForm, LoginForm, RegistrationForm,
AddForm
from mtglogger.models import User, Card
from mtglogger.scripts.card import by name, by multiverseId, return card
@app.errorhandler(404)
def page not found(e):
   return render template('errors/404.html', title="404 Error"), 404
@app.route("/", methods=['GET', 'POST'])
def home():
  return render template("index.html", title="Home")
@app.route("/search/<search query>", methods=['GET', 'POST'])
```

```
def results(search query):
cards = by name(search query)
 return render template("results.html", title="Search", cards=cards)
@app.route("/login", methods=['GET', 'POST'])
def login():
if current user.is authenticated:
  flash('Your already logged in.', 'info')
  return redirect(url for('home'))
loginForm = LoginForm()
if loginForm.validate on submit() and loginForm.submit.data:
   user = User.query.filter by(username=loginForm.username.data).first()
   if user and bcrypt.check password hash (user.password,
loginForm.password.data):
    login user(user)
     next page = request.args.get('next')
    message = Markup('Login successful! Welcome back <b>' +
current user.username + '</b>.')
     flash (message, 'success')
     return redirect(next page) if next page else
redirect(url for('home'))
     flash ('Login unsuccessful, please check your username and password.',
'danger')
 return render template ("auth/login.html", title="Login",
loginForm=loginForm)
@app.route("/register", methods=['GET', 'POST'])
def register():
if current user.is authenticated:
   flash('Your already logged in.', 'info')
```

```
registrationForm = RegistrationForm()
if registrationForm.validate on submit():
   hashed password =
bcrypt.generate password hash(registrationForm.password.data).decode('utf-
8')
   user = User(username=registrationForm.username.data,
email=registrationForm.email.data, password=hashed password)
   db.session.add(user)
  db.session.commit()
   flash('Your account has been created! You are now able to login.',
'success')
   return redirect(url for('login'))
return render template ("auth/register.html", title="Register",
registrationForm=registrationForm)
@app.route("/collection", methods=['GET', 'POST'])
def collection():
act cards = []
for i in current user.cards:
  card = return card(i.multiverse id)
  card["quantity"] = i.quantity
  act cards.append(card)
return render template ("collection.html", title="Collection",
act cards=act cards)
@app.route("/card/<multiverse id>", methods=['POST', 'GET'])
def card(multiverse id):
card = return card(multiverse id)
if card:
  page title = card["name"]
else:
  page title = "Not Valid Card"
```

```
form = AddForm()
if form.validate_on_submit():
    if not current_user.is_authenticated:
        flash('You must login to add cards to your collection.', 'warning')
        return redirect(url_for('login'))
    else:
        card = Card(multiverse_id=multiverse_id, quantity=form.quantity.data,
    owner=current_user)
        db.session.add(card)
        db.session.commit()
        return redirect(url_for('collection'))

return render_template("card.html", title=page_title, form=form,
    card=card)
```

cards.py

```
import sqlite3
def by name(card name):
sqlite3.connect('/home/lan/Documents/MagicLogger/mtglogger/cards.sqlite')
c = conn.cursor()
c.execute("SELECT name, setCode, multiverseId FROM cards WHERE name=?",
(card name,))
rows = c.fetchall()
conn.close()
if len(rows) > 0:
   cards = rows
else:
   cards = [['Card Not Found', '']]
new cards = []
 for i in cards:
  if i[2]:
     image url =
str('https://gatherer.wizards.com/Handlers/Image.ashx?multiverseid=' +
str(i[2]) + '&type=card')
     i = i + (image url, )
```

```
new cards.append(i)
return new cards
def by multiverseId(id):
sqlite3.connect('/home/lan/Documents/MagicLogger/mtglogger/cards.sqlite')
c = conn.cursor()
c.execute("SELECT name, setCode, multiverseld FROM cards WHERE
multiverseId=?", (id,))
rows = c.fetchall()
if len(rows) > 0:
  card = rows[0]
image url =
str('https://gatherer.wizards.com/Handlers/Image.ashx?multiverseid=' +
str(card[2]) + '&type=card')
card = card + (image_url, )
return card
def return card(id):
sqlite3.connect('/home/lan/Documents/MagicLogger/mtglogger/cards.sqlite')
c = conn.cursor()
c.execute("SELECT name, setCode, multiverseId, rarity, originalType,
power, toughness, text, flavorText, type, manaCost FROM cards WHERE
multiverseId=?", (id,))
rows = c.fetchall()
if len(rows) > 0:
  notDictCard = rows[0]
  card = {}
  card["name"] = notDictCard[0]
  card["set"] = notDictCard[1]
  card["id"] = notDictCard[2]
  card["rarity"] = notDictCard[3]
  card["originalType"] = notDictCard[4]
   card["type"] = notDictCard[9]
```

```
card["power"] = notDictCard[5]
  card["toughness"] = notDictCard[6]
  card["text"] = notDictCard[7]
  card["flavor"] = notDictCard[8]
  card["image_url"] =
str('https://gatherer.wizards.com/Handlers/Image.ashx?multiverseid=' +
str(card["id"]) + '&type=card')
  card["manaCost"] = notDictCard[10]
else:
  card = None
return card
```

models.py

```
from datetime import datetime
from mtglogger import db, login manager
from flask login import UserMixin
@login manager.user loader
def load user(user id):
return User.query.get(int(user id))
class User(db.Model, UserMixin):
id = db.Column(db.Integer, primary key=True)
username = db.Column(db.String(16), unique=True, nullable=False)
email = db.Column(db.String(32), unique=True, nullable=False)
password = db.Column(db.String(128), nullable=False)
 join date = db.Column(db.DateTime, nullable=False,
default=datetime.utcnow())
cards = db.relationship('Card', backref='owner', lazy=True)
class Card(db.Model, UserMixin):
id = db.Column(db.Integer, primary key=True)
multiverse id = db.Column(db.String, nullable=False)
```

```
quantity = db.Column(db.Integer, nullable=False)
user_id = db.Column(db.Integer, db.ForeignKey('user.id'), nullable=False)
```

forms.py

```
from flask wtf import FlaskForm
from flask wtf.file import FileField, FileAllowed
from flask login import current user
from wtforms import StringField, PasswordField, SubmitField, BooleanField,
TextAreaField, SelectField, FileField
from wtforms.validators import DataRequired, Length, EqualTo,
ValidationError, email
from mtglogger.models import User
class SearchForm(FlaskForm):
query = StringField('Search', validators=[DataRequired()])
search = SubmitField('Search')
class LoginForm(FlaskForm):
username = StringField('Username', validators=[DataRequired()])
password = PasswordField('Password', validators=[DataRequired()])
submit = SubmitField('Login')
class RegistrationForm(FlaskForm):
username = StringField('Username', validators=[DataRequired(),
Length(min=4, max=16)])
email = StringField('Username', validators=[DataRequired()])
password = PasswordField('Password',
validators=[DataRequired(Length(min=8, max=128))])
 confirm password = PasswordField('Confirm', validators=[DataRequired(),
EqualTo('password')])
 submit = SubmitField('Sign Up')
 def validate username(self, username):
  user = User.query.filter by(username=username.data).first()
  if user:
     raise ValidationError('That username is taken. Please choose a
different one.')
```

```
class AddForm(FlaskForm):
   condition = SelectField('Condition', choices=[('Near Mint', 'Near Mint
   (NM)'), ('Lightly Played', 'Lightly Played (LP)'), ('Moderately Played',
   'Moderatly Played (MP)'), ('Heavily Played', 'Heavily Played (HP)'),
   ('Damaged', 'Damaged (D)')])
   quantity = StringField('Quantity', validators=[DataRequired()])
   add = SubmitField('Add to Collection')
```

init .py

```
from flask import Flask
from flask sqlalchemy import SQLAlchemy
from flask bcrypt import Bcrypt
from flask login import LoginManager

app = Flask(__name__)
app.config['SECRET_KEY'] = 'my_secret_key'
app.config['SQLALCHEMY_DATABASE_URI'] = 'sqlite:///site.db'
db = SQLAlchemy(app)
bcrypt = Bcrypt(app)
login_manager = LoginManager(app)
login_manager.login_view = 'login'
login_manager.login_message_category = 'info'
from_mtglogger_import_routes
```

run.py

```
from mtglogger import app

if __name__ == '__main__':
    app.run(debug=True)
```

card.py

```
import sqlite3

def by_name(card_name):
```

```
sqlite3.connect('/home/lan/Documents/MagicLogger/mtglogger/cards.sqlite')
c = conn.cursor()
c.execute("SELECT name, setCode, multiverseId FROM cards WHERE name=?",
(card name,))
rows = c.fetchall()
conn.close()
if len(rows) > 0:
   cards = rows
  cards = [['Card Not Found', '']]
new cards = []
 for i in cards:
  if i[2]:
     image url =
str('https://gatherer.wizards.com/Handlers/Image.ashx?multiverseid=' +
str(i[2]) + '&type=card')
    i = i + (image url, )
     new cards.append(i)
 return new cards
def by multiverseId(id):
sqlite3.connect('/home/lan/Documents/MagicLogger/mtglogger/cards.sqlite')
c.execute("SELECT name, setCode, multiverseId FROM cards WHERE
multiverseId=?", (id,))
rows = c.fetchall()
if len(rows) > 0:
  card = rows[0]
image url =
str('https://gatherer.wizards.com/Handlers/Image.ashx?multiverseid=' +
str(card[2]) + '&type=card')
card = card + (image url, )
return card
```

```
def return card(id):
sqlite3.connect('/home/lan/Documents/MagicLogger/mtglogger/cards.sqlite')
c = conn.cursor()
c.execute("SELECT name, setCode, multiverseId, rarity, originalType,
power, toughness, text, flavorText, type, manaCost FROM cards WHERE
multiverseId=?", (id,))
rows = c.fetchall()
if len(rows) > 0:
  notDictCard = rows[0]
  card = {}
  card["set"] = notDictCard[1]
  card["id"] = notDictCard[2]
  card["rarity"] = notDictCard[3]
  card["originalType"] = notDictCard[4]
  card["type"] = notDictCard[9]
  card["power"] = notDictCard[5]
  card["toughness"] = notDictCard[6]
  card["text"] = notDictCard[7]
  card["flavor"] = notDictCard[8]
   card["image url"] =
str('https://gatherer.wizards.com/Handlers/Image.ashx?multiverseid=' +
str(card["id"]) + '&type=card')
   card["manaCost"] = notDictCard[10]
else:
   card = None
return card
```

auth/login.html

```
{% extends "layout.html" %}
{% block content %}
<div class="auth">
```

```
<form method="POST" action="">
   {{ loginForm.hidden tag() }}
  <h4>Login</h4>
  <hr>>
  <div <pre>class="form-group">
    <label>Username
     {% if loginForm.username.errors %}
         {{ loginForm.username(class="form-control is-invalid") }}
         <div class="invalid-feedback">
             {% for error in loginForm.username.errors %}
                 <span>{{ error }}</span>
             {% endfor %}
         </div>
     {% else %}
         {{ loginForm.username(class="form-control") }}
     {% endif %}
  </div>
  <div <pre>class="form-group">
    <label>Password</label>
     {% if loginForm.password.errors %}
         {{ loginForm.password(class="form-control is-invalid") }}
         <div <pre>class="invalid-feedback">
             {% for error in loginForm.password.errors %}
                 <span>{{ error }}</span>
             {% endfor %}
         </div>
     {% else %}
         {{ loginForm.password(class="form-control") }}
     {% endif %}
  </div>
  <div <pre>class="form-group">
    {{ loginForm.submit(class="btn btn-primary") }}
  </div>
</form>
</div>
{% endblock %}
```

auth/register.html

```
{% extends "layout.html" %}
{% block content %}
<div class="auth">
<form method="POST" action="">
   {{ loginForm.hidden tag() }}
  < h4 > Login < /h4 >
  <div <pre>class="form-group">
     <label>Username
     {% if loginForm.username.errors %}
         {{ loginForm.username(class="form-control is-invalid") }}
         <div class="invalid-feedback">
             {% for error in loginForm.username.errors %}
                 <span>{{ error }}</span>
             {% endfor %}
         </div>
     {% else %}
         {{ loginForm.username(class="form-control") }}
     {% endif %}
   </div>
  <div <pre>class="form-group">
     <label>Password</label>
     {% if loginForm.password.errors %}
         {{ loginForm.password(class="form-control is-invalid") }}
         <div class="invalid-feedback">
             {% for error in loginForm.password.errors %}
                 <span>{{ error }}</span>
             {% endfor %}
         </div>
     {% else %}
         {{ loginForm.password(class="form-control") }}
     {% endif %}
  </div>
  <div <pre>class="form-group">
     {{ loginForm.submit(class="btn btn-primary") }}
  </div>
```

```
</form>
</div>
{% endblock %}
```

card.html

```
{% extends "layout.html" %}
{% block content %}
{% if card %}
<div class="row">
<div class="col-3">
 <img src="{{ card['image url'] }}" style="width: 100%;">
</div>
<div class="col-6">
 <h3 class="title">{{ card["name"] }}</h3>
 {{ card["set"] }}
 <div class="row">
   <div class="col-4">
    Rarity:
    Card Type:
    {% if "Creature" in card["type"] %}
     P / T:
    {% endif %}
    Description:
    Flavor:
   </div>
   <div class="col-8">
    {{ card["rarity"].title() }}
    {{ card["type"] }}
    {% if "Creature" in card["type"] %}
     {{ card["power"] + ' / ' +
card["toughness"] }}
    {% endif %}
    {{ card["text"] }}
    {{ card["flavor"] }}
   </div>
 </div>
```

```
</div>
<div class="col-3">
  <div class="content-section">
    <h3 class="price">$37.75</h3>
    <form method="POST" action="">
      {{ form.hidden tag() }}
      <div <pre>class="form-group">
        {% if form.condition.errors %}
        {{ form.condition(class="form-control is-invalid") }}
        <div class="invalid-feedback">
          {% for error in form.condition.errors %}
            <span>{{ error }}</span>
          {% endfor %}
        </div>
        {% else %}
          {{ form.condition(class="form-control") }}
        {% endif %}
        <a</pre>
href="https://www.mtgseattle.com/card condition guide" target=" blank"
style="color: #145488;">What is my cards condition?</a>
      </div>
      <div <pre>class="form-group">
        {% if form.quantity.errors %}
        {{ form.quantity(class="form-control is-invalid") }}
        <div class="invalid-feedback">
          {% for error in form.quantity.errors %}
          {% endfor %}
        </div>
        {% else %}
           {{ form.quantity(class="form-control", placeholder="Quantity")
        {% endif %}
      </div>
      <div <pre>class="form-group">
        {{ form.add(class="btn btn-success add-btn") }}
      </div>
```

```
</form>
  </div>
  </div>
</div>
</div>
{% else %}
  <h1>Not Valid Card</h1>
{% endif %}
{% endblock %}
```

collection.html

```
{% extends "layout.html" %}
{% block content %}
{% if card %}
<div class="row">
<div class="col-3">
  <img src="{{ card['image url'] }}" \overline{style}="width: \overline{100\%;}">
</div>
<div class="col-6">
  <h3 class="title">{{ card["name"] }}</h3>
 {{ card["set"] }}
  <div class="row">
   <div class="col-4">
    Rarity:
    Card Type:
    {% if "Creature" in card["type"] %}
      P / T:
    {% endif %}
    Description:
    Flavor:
   </div>
   <div class="col-8">
    {{ card["rarity"].title() }}
    {{ card["type"] }}
    {% if "Creature" in card["type"] %}
      {{ card["power"] + ' / ' +
card["toughness"] }}
    {% endif %}
```

```
{{ card["text"] }}
      {{ card["flavor"] }}
    </div>
</div>
<div class="col-3">
  <div class="content-section">
    <h3 class="price">$37.75</h3>
    <form method="POST" action="">
      {{ form.hidden tag() }}
      <div <pre>class="form-group">
        {% if form.condition.errors %}
        {{ form.condition(class="form-control is-invalid") }}
        <div class="invalid-feedback">
         {% for error in form.condition.errors %}
           <span>{{ error }}</span>
         {% endfor %}
        </div>
        {% else %}
          {{ form.condition(class="form-control") }}
        {% endif %}
        <a</pre>
href="https://www.mtgseattle.com/card condition guide" target=" blank"
style="color: #145488;">What is my cards condition?</a>
      </div>
      <div class="form-group">
        {% if form.quantity.errors %}
        {{ form.quantity(class="form-control is-invalid") }}
        <div <pre>class="invalid-feedback">
         {% for error in form.quantity.errors %}
         {% endfor %}
        </div>
        {% else %}
          {{ form.quantity(class="form-control", placeholder="Quantity")
        {% endif %}
```

index.html

layout.html

```
<link rel="stylesheet" text="text/css" href="{{ url for('static',</pre>
filename='styles/main.css') }}">
  <script src="https://code.jquery.com/jquery-3.4.1.slim.min.js"</pre>
integrity="sha384-J6qa4849blE2+poT4WnyKhv5vZF5SrPo0iEjwBvKU7imGFAV0wwj1yYf
<script
src="https://cdn.jsdelivr.net/npm/popper.js@1.16.0/dist/umd/popper.min.js"
integrity="sha384-Q6E9RHvbIyZFJoft+2mJbHaEWldlvI9IOYy5n3zV9zzTtmI3UksdQRVv
<script
src="https://stackpath.bootstrapcdn.com/bootstrap/4.4.1/js/bootstrap.min.j
ر اا
اا ې
integrity="sha384-wfSDF2E50Y2D1uUdj003uMBJnjuUD4Ih7YwaYd1igfktj0Uod8GCEx13
<script src="https://kit.fontawesome.com/010964ebfa.js"</pre>
crossorigin="anonymous"></script>
  <title>MagicLogger | {{ title }}</title>
</head>
  <nav class="navbar navbar-expand-lg navbar-light top-results">
    <a class="navbar-brand" href="{{ url for('home') }}">Magic Logger</a>
    <button class="navbar-toggler" type="button" data-toggle="collapse"</pre>
data-target="#navbarSupportedContent"
aria-controls="navbarSupportedContent" aria-expanded="false"
aria-label="Toggle navigation">
      <span class="navbar-toggler-icon"></span>
    <div class="collapse navbar-collapse" id="navbarSupportedContent">
```

```
<a class="nav-link" href="{{ url for('home') }}">Home <span</pre>
class="sr-only">(current)</span></a>
        <a class="nav-link" href="#">Info</a>
        {% if not current user.is authenticated %}
          <a class="nav-link dropdown-toggle" href="#"</pre>
id="navbarDropdown" role="button" data-toggle="dropdown"
aria-haspopup="true" aria-expanded="false">
              Auth
            </a>
            <div class="dropdown-menu" aria-labelledby="navbarDropdown">
              <a class="dropdown-item" href="{{ url for('login')}</pre>
} } ">Login</a>
              <a class="dropdown-item" href="{{ url for('register')}</pre>
}}">Register</a>
            </div>
          {% else %}
          <a class="nav-link" href="{{ url for('collection')}</pre>
}}">Collection</a>
          {% endif %}
      <form method="POST" action="" class="form-inline my-2 my-lg-0">
        <div class="form-group">
            <input type="text" placeholder="Enter a card name"</pre>
class="form-control mr-sm-2">
        <div <pre>class="form-group">
          <button class="btn btn-outline-primary">Search</button>
        </div>
    </form>
    </div>
```

```
</nav>
     <div <pre>class="message-area">
       {% with messages = get flashed messages(with categories=true) %}
         {% if messages %}
           {% for category, message in messages %}
             <div class="alert alert-{{ category }} alert-dismissible fade</pre>
show">
               {{ message }}
               <button type="button" class="close" data-dismiss="alert"</pre>
aria-label="Close">
                    <span aria-hidden="true">&times;</span>
                </button>
             </div>
           {% endfor %}
         {% endif %}
       {% endwith %}
     </div>
     {% block content %}
     {% endblock %}
   </main>
</html>
```

<u>nav.html</u>

```
<a class="nav-link" href="{{ url for('home') }}">Home <span</pre>
class="sr-only">(current)</span></a>
    <a class="nav-link" href="#">Info</a>
    <a class="nav-link dropdown-toggle" href="#" id="navbarDropdown"</pre>
role="button" data-toggle="dropdown" aria-haspopup="true"
aria-expanded="false">
        Auth
      </a>
      <div class="dropdown-menu" aria-labelledby="navbarDropdown">
        <a class="dropdown-item" href="#">Login</a>
        <a class="dropdown-item" href="#">Registers</a>
      </div>
    <form method="POST" action="" class="form-inline my-2 my-lg-0">
    {{ form.hidden tag() }}
    <div <pre>class="form-group">
        {% if form.query.errors %}
            {{ form.query(class="form-control is-invalid") }}
            <div class="invalid-feedback">
                {% for error in form.query.errors %}
                    <span>{{ error }}</span>
                {% endfor %}
            </div>
        {% else %}
            {{ form.query(class="form-control mr-sm-2",
placeholder="Enter a Card Name") }}
        {% endif %}
    </div>
    <div class="form-group">
        {{ form.search(class="btn btn-outline-primary") }}
    </div>
 </form>
```

```
</div>
</nav>
```

results.html

```
{% extends "layout.html" %}
{% block content %}
<div class="row row-cols-4">
  {% for i in cards %}
       <div class="card-result">
         <img src="{{ i[3] }}">
         <div <pre>class="card-result-content">
           Magic: The Gathering
           {{ i[1] }}
           <h5 class="card-name">{{ i[0] }}</h5>
         </div>
       </div>
       </a>
    </div>
  {% endfor %}
</div>
{% endblock %}
```

main.css

```
html, body {
  background-color: #f8f9f9;
  overflow-x: hidden;
}
.splash {
  text-align: center;
}
.top-results {
  background-color: #fff;
  padding: 1.25rem 1.5rem;
```

```
box-shadow: 0 1px 3px rgba(149, 161, 171, .14), 0 1px 2px rgba(149, 161,
171, .24);
.top-results p {
margin: 0;
.top-results span {
font-family: "InterBold";
main {
margin-left: auto;
margin-right: auto;
margin-top: 2rem;
display: block;
background-color: #fff;
padding: 0.1rem 0.2rem;
margin-bottom: 1rem;
box-shadow: 0 1px 3px rgba(149, 161, 171, .14), 0 1px 2px rgba(149, 161,
171, .24);
border-radius: 4px;
.card-result img {
margin: 0 auto;
```

```
display: block;
padding: 0.5rem 2.5rem;
font-family: "InterBold";
color: #171717;
margin: 0;
.set-name {
font-family: "InterSemiBold";
margin: 0;
.card-name a {
font-family: "InterBold";
margin-top: 0.4rem;
.card-add {
color: #145488;
font-family: "InterSemiBold";
```

```
margin-left: auto;
margin-right: auto;
display: block;
box-shadow: 0 1px 3px rgba(149, 161, 171, .14), 0 1px 2px rgba(149, 161,
171, .24);
border-radius: 4px;
.title {
font-family: "InterBold";
.set {
color: #adb5bd;
font-family: "InterSemiBold";
.section-title {
font-family: "InterBold";
margin: 0.1rem;
font-size: 0.9rem;
.section-title-content {
font-size: 0.9rem;
margin: 0.1rem;
.price {
font-family: "InterBold";
background-color: #fff;
```

```
margin-left: auto;
margin-right: auto;
box-shadow: 0 1px 3px rgba(149, 161, 171, .14), 0 1px 2px rgba(149, 161,
171, .24);
font-family: "InterSemiBold";
.collection-card {
border-left: 1px solid #333;
.collection-card p {
margin: 0;
font-size: 0.87rem;
padding: 0.25rem 0.5rem;
border: 1px solid #333;
margin: 0;
```

```
font-size: 0.75rem;
padding:.125rem .25rem;
}
```

fonts.css

```
@font-face {
  font-family: "Inter";
  src: url(../fonts/Inter/Inter-Regular-sInt=0.ttf);
}

@font-face {
  font-family: "InterSemiBold";
  src: url(../fonts/Inter/Inter-SemiBold-sInt=0.ttf);
}

@font-face {
  font-family: "InterBold";
  src: url(../fonts/Inter/Inter-Bold-sInt=0.ttf);
}
```