Pydantic Settings Configuration Fix - Summary

Issues Fixed

1. Pydantic v2 Configuration Error

Problem: The Settings class was using Pydantic v1 style `Config` class, which is incompatible with Pydantic v2.

Error Message:

```
Extra inputs are not permitted [type=extra_forbidden, input_value='sqlite:///./ssv-
proff.db', input_type=str]
```

Solution:
- Updated `api/app/config.py` to use Pydantic v2 syntax
- Replaced `class Config` with `model_config = SettingsConfigDict`
- Imported `SettingsConfigDict` from `pydantic_settings`
- Added `extra="allow"` to the config to allow environment variables

2. CORS_ORIGINS Parsing Error

Problem: The `.env` file contains CORS_ORIGINS as a comma-separated string, but Pydantic expected JSON format for lists.

Solution:
- Added a `field_validator` to parse comma-separated values into a list
- Changed type annotation to `Union[List[str], str]` to accept both formats
- The validator automatically splits comma-separated strings

3. Circular Import Issue

Problem: Circular import between `app/db/base.py` and `app/models/user.py` :
- `app/models/user.py` imports `Base` from `app.db.base`
- `app/db/base.py` imports `User` from `app.models.user`

Solution:
- Removed the `User` import from `app/db/base.py`
- Added `Base` export to `app/models/__init__.py`
- This allows `database.py` to import `Base` from models as expected

4. init_db.py User Model Mismatch

Problem: The script tried to create a user with a `full_name` field that doesn't exist in the User model.

Solution:
- Removed the `full_name` field from the admin user creation in `init_db.py`

Files Modified

1. **api/app/config.py**
   - Updated to Pydantic v2 syntax with `SettingsConfigDict`
   - Added field validator for CORS_ORIGINS parsing
   - Removed deprecated `env` parameter from Field definitions

2. **api/app/db/base.py**
   - Removed circular import of User model
   - Simplified to only define the Base declarative class

3. **api/app/models/init.py**
   - Added Base export for use by database.py

4. **api/init_db.py**
   - Removed `full_name` field from admin user creation

Verification

The fix has been verified by successfully:
1. ✅ Loading settings from environment variables
2. ✅ Importing Base and User models without circular import errors
3. ✅ Running `python init_db.py` to initialize the database
4. ✅ Creating default admin user

Test Results

```
$ python -c "from app.config import settings; print('✓ Settings loaded successfully')"
✓ Settings loaded successfully
DATABASE_URL: sqlite:///./ssvproff.db
SECRET_KEY: dev-secret...
DEBUG: True
CORS_ORIGINS: ['http://localhost:3000', 'http://localhost:8000', 'http://
127.0.0.1:3000', 'http://127.0.0.1:8000']

$ python init_db.py
==================================================
SSVproff Database Initialization
==================================================

1. Creating database tables...
Database initialized successfully!
✓ Database tables created successfully

2. Creating default admin user...
✓ Default admin user created
  Username: admin
  Password: admin123
  ⚠️  Please change the password immediately!


==================================================
Database initialization completed successfully!
==================================================
```

Git Commit

Branch: `feat/comprehensive-config-no-workflows`

Commit Message:

```
Fix Pydantic v2 settings configuration and circular import issues

- Updated config.py to use Pydantic v2 syntax with SettingsConfigDict
- Added field_validator for CORS_ORIGINS to parse comma-separated values
- Removed circular import between app/db/base.py and app/models/user.py
- Fixed Base import in models/__init__.py
- Removed full_name field from init_db.py (not in User model)
- All settings now load correctly from environment variables
- Database initialization works successfully
```

Commit Hash: `116e0ad`

Next Steps

To pull the latest changes on your Windows machine:

```
cd C:\Users\Suxow\github_repos\SSVproff
git pull origin feat/comprehensive-config-no-workflows
```

Then you can test the fixes:

```
# Activate virtual environment
.\venv\Scripts\Activate.ps1

# Navigate to api directory
cd api

# Initialize the database
python init_db.py

# Run the API server
uvicorn app.main:app --reload
```

Notes

- The bcrypt version warning at the end is harmless and doesn't affect functionality
- The DATABASE_URL defaults to `sqlite:///./ssvproff.db` (SQLite database in the current directory)
- All settings can be overridden via environment variables or the `.env` file
- The configuration now follows Pydantic v2 best practices

Security Reminder

⚠️ **Important:** The default admin credentials are:
- Username: `admin`
- Password: `admin123`

Please change these immediately after first login!

The SECRET_KEY in `.env` is also a development key and should be changed for production use.