How to Push This Repository to GitHub

Your repository is fully prepared and committed locally at:

`/home/ubuntu/github_repos/Abacus-VitD-DM2`

All files have been organized, committed, and are ready to push to:
https://github.com/ej777spirit/Abacus-VitD-DM2

Option 1: Complete GitHub CLI Authentication (Quickest)

A GitHub authentication process was started. To complete it:

1. **Copy this one-time code**: `B66B-EB90`

2. **Visit**: https://github.com/login/device

3. **Paste the code** and authorize the application

4. **Then run**:
   ```bash
   cd /home/ubuntu/github_repos/Abacus-VitD-DM2
   git push -u origin master
   ```

Option 2: Use Personal Access Token (Most Reliable)

Step 1: Create a GitHub Personal Access Token

1. Go to: https://github.com/settings/tokens
2. Click "Generate new token" → "Generate new token (classic)"
3. Give it a name: `Abacus-VitD-DM2-Upload`
4. Select scopes: `repo` (full control of private repositories)
5. Click "Generate token"
6. **Copy the token immediately** (you won't see it again)

Step 2: Push Using Token

```
cd /home/ubuntu/github_repos/Abacus-VitD-DM2

# Replace YOUR_TOKEN_HERE with your actual token
git remote set-url origin https://YOUR_TOKEN_HERE@github.com/ej777spirit/Abacus-VitD-
DM2.git

# Push to GitHub
git push -u origin master
```

Option 3: Use SSH Key (For Future Convenience)

Generate SSH Key:

```
ssh-keygen -t ed25519 -C "your_email@example.com"
# Press Enter to accept default location
# Optionally set a passphrase
```

Add SSH Key to GitHub:

```
# Copy the public key
cat ~/.ssh/id_ed25519.pub
```

1. Go to: https://github.com/settings/keys
2. Click "New SSH key"
3. Paste your public key
4. Click "Add SSH key"

Update Remote and Push:

```
cd /home/ubuntu/github_repos/Abacus-VitD-DM2
git remote set-url origin git@github.com:ej777spirit/Abacus-VitD-DM2.git
git push -u origin master
```

Option 4: Manual Upload via GitHub Web Interface

If you prefer not to use command line:

1. Go to: https://github.com/ej777spirit/Abacus-VitD-DM2
2. Click "uploading an existing file" or "Add file" → "Upload files"
3. Drag and drop the entire `/home/ubuntu/github_repos/Abacus-VitD-DM2` folder contents
4. Commit the changes

Note: This method doesn't preserve git history.

Verification After Push

Once pushed successfully, verify at:
https://github.com/ej777spirit/Abacus-VitD-DM2

You should see:
- ✅ README.md displayed on the main page
- ✅ All 6 main directories (aims_paper, computational_analysis, datasets, literature, presentations, templates)
- ✅ 27 files total
- ✅ Professional project structure

Quick Push Script

I've also created a helper script below. After authentication, you can run:

```
bash /home/ubuntu/github_repos/Abacus-VitD-DM2/push_to_github.sh
```

Troubleshooting

Error: "Repository not found"

- Ensure the repository exists at https://github.com/ej777spirit/Abacus-VitD-DM2
- Check if it's a private repo and you have access

Error: "Authentication failed"

- Try Option 2 (Personal Access Token)
- Ensure your token has `repo` scope

Error: "Permission denied"

- Verify you're the repository owner or have write access
- Check SSH key is added to GitHub (if using SSH)

What's Been Prepared

All your project files are organized and committed:

```
✅ 27 files committed
✅ Complete README.md
✅ Literature review (MD + PDF)
✅ Omics datasets inventory (MD + PDF)
✅ Research templates (MD + PDF)
✅ Aims paper (MD + PDF)
✅ Computational analysis plan
✅ Genomics analysis pipeline with results
✅ Thesis presentation (HTML)
✅ Project summary
```

Commit message: "Initial commit: Complete Vitamin D and Type 2 Diabetes multi-omics research project"

Need help? The repository is fully prepared and ready to push. Choose the authentication method that works best for you!