



Updated saved memory

Awesome! Here's a structured roadmap to learn Python (basic to advanced) and then move into Django (basic to advanced) using PyCharm as your IDE.

## 🚀 Phase 1: Python Basics (Start Here)

Goal: Build a strong Python foundation.

### 1. Python Setup in PyCharm

- Install [PyCharm Community](#)
- Create a new Python project and virtual environment.

### 2. Core Topics

- Variables, Data Types (`int`, `float`, `str`, `bool`)
- Input/Output



- Loops (`for`, `while`)
- Functions
- Lists, Tuples, Sets, Dictionaries
- String Operations
- List Comprehensions

### 3. Practice

- Solve 10–20 beginner problems on [HackerRank](#) or [W3Schools](#)

## 🚀 Phase 2: Intermediate Python

Goal: Handle real-world logic and reusable code.

### 1. Core Topics

- File Handling (`open`, `read`, `write`)
- Error Handling (`try`, `except`)



- Modules and Packages
- Object-Oriented Programming (Classes, Objects, Inheritance)
- Lambda Functions, `map()`, `filter()`, `reduce()`
- Decorators
- Iterators and Generators

### 2. Practice Projects

- Build a calculator
- Create a contact book (save/load data from files)

## 🚀 Phase 3: Advanced Python

Goal: Get comfortable with concepts used in web frameworks like Django.

### 1. Advanced Topics

- Virtual environments (`venv`)



- `pip` and `requirements.txt`
- Unit Testing (`unittest`, `pytest`)
- Regular Expressions
- Working with APIs (`requests`)
- JSON, CSV
- SQLite with Python

## 🚀 Phase 4: Django Basics

Goal: Learn how to create a web app.

### 1. Django Setup

- Install Django: `pip install django`
- Create a project: `django-admin startproject mysite`
- Run server: `python manage.py runserver`

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- Project vs App
- URL Routing
- Views and Templates
- Models and Migrations
- Admin Panel

### 3. Mini Project

- Build a basic blog app

## 🚀 Phase 5: Django Intermediate

Goal: Add more logic and structure to your app.

### 1. Topics

- Class-Based Views
- Forms (regular and ModelForm)
- Static & Media Files
- Authentication (Login/Logout/Register)
- Django ORM queries

### 2. Mini Project

- To-Do App with Login

## 🚀 Phase 6: Django Advanced

Goal: Make your app production-ready.

### 1. Topics

- Custom User Model
- Signals
- REST API with Django REST Framework
- Pagination, Filtering, Search
- Deployment (on PythonAnywhere or Railway)

### 2. Final Project Ideas

- Blog + Comments + Likes
- Notes App with REST API
- E-commerce mini project

## 🚀 Bonus: PyCharm Tips

- Use the Python Console for quick testing.
- Explore debugger, code formatting, shortcuts.
- Enable Django support in PyCharm settings (Professional version has full support).

Would you like me to create a checklist, give you a weekly plan, or recommend specific tutorials or YouTube playlists for each topic?

also give me roadmap of topics and resources

Perfect! Here's your complete Python + Django Development Roadmap along with resources for each topic, structured from Beginner to Advanced. It's ideal for self-paced learning using PyCharm.

## 🎯 PHASE 1: Python Basics

## PHASE 1: Python Basics

### Topics

- Installing Python & PyCharm
- Variables & Data Types
- Input / Output
- Operators



- Loops (`for`, `while`)
- Functions
- Lists, Tuples, Sets, Dictionaries
- String operations

### Resources

- [W3Schools Python Tutorial](#)
- [Programiz Python Tutorial](#)
- YouTube: [Telusko](#) or [CodeWithHarry](#) – Python for Beginners

## PHASE 2: Intermediate Python

### Topics

- File Handling (Read/Write files)
- Functions with `*args` / `**kwargs`
- Error Handling (`try`, `except`, `finally`)
- Modules & Packages
- Object-Oriented Programming (OOP)
  - Classes, Objects
  - Inheritance, Polymorphism
  - `__init__`, `self`
- List Comprehensions
- Lambda, Map, Filter, Reduce



### Resources

- [RealPython - Intermediate Python](#)
- [GeeksforGeeks Python OOPs](#)



## PHASE 3: Advanced Python

### Topics

- Decorators
- Iterators & Generators
- Virtual Environments
- Regular Expressions
- Working with APIs (`requests`)
- JSON, CSV, SQLite
- Unit Testing with `unittest` / `pytest`

### Resources

- [RealPython - Advanced Tutorials](#)
- YouTube: [Tech With Tim](#) – Python Advanced Concepts
- [Python Docs](#)



## PHASE 4: Django Basics

### Topics

- Installing Django
- Django Project vs App
- URL Routing (`urls.py`)

- Views (Function-Based Views)
- Templates (HTML + Template Tags)
- Models, Migrations
- Admin Panel
- Static Files & Media

#### Resources

- [Django Official Tutorial](#)
- [MDN Django Tutorial](#)

### PHASE 5: Django Intermediate

#### ◆ Topics

- Class-Based Views
- Forms and ModelForms
- Authentication (Login, Logout, Register)
- Messages Framework
- Django ORM Deep Dive (filtering, querying)
- Custom Templates and Inheritance

#### Resources

- [SimpleIsBetterThanComplex - Django Basics to Advanced](#)
- [YouTube: Dennis Ivy Projects](#)
- [Django Docs - CBV](#)

### PHASE 6: Django Advanced

#### ◆ Topics

- Custom User Model
- Signals
- Permissions & Groups
- Pagination, Search & Filters
- Django REST Framework (DRF)
- API Endpoints, Serializers, ViewSets
- Deployment (Heroku, Railway, PythonAnywhere)

#### Resources

- [Django REST Framework Docs](#)
- [YouTube: BugBytes - DRF Tutorial, Code With Stein](#)
- [Deploy Django to Railway](#)

### Tools & Practice

#### PyCharm Tips

- [Use Code Snippets](#)
- [Learn PyCharm Shortcuts](#)
- [Use Debugger to step through code](#)

#### Practice Platforms

- [LeetCode](#)
- [HackerRank](#)
- [DjangoProject Practice Apps](#)

### Suggested Weekly Plan (Optional)

Would you like a 4-week or 8-week plan? I can break this into daily/weekly goals for you if you prefer!

Also let me know:

- Are you learning for a job/internship?
- Would you prefer English or Hindi resources primarily?

Let's customize it for your vibe 🇮🇳🔥

Ask anything



Search



Reason



ChatGPT can make mistakes. Check important info.

