

Python SaaS Development with Stripe

Build subscription-based SaaS applications using Python and integrate Stripe for seamless payments. Ideal for developers and entrepreneurs.

Python Instructor: Jordan Carter • 5 sections • 52 lessons • 21.00h total

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About this course

Building a SaaS application with Python often hits a roadblock when it comes to payment processing. This course guides you through integrating Stripe, a leading payment gateway, to handle subscriptions, one-time payments, and more, all within your Python backend.

You'll learn step-by-step how to set up your environment, connect to Stripe's API, manage customer data, and implement webhooks for real-time updates. The course includes video lessons, real-world case studies, and downloadable code templates to help you build and deploy your SaaS app efficiently.

Course curriculum

Foundations: Setting Up Python and Stripe

- **How SaaS Applications and Stripe Payments Work (12m)**
Understand the basics of SaaS models and how Stripe handles payments, setting the stage for integration.
- **Setting Up Your Python Development Environment (18m)**
Step-by-step guide to installing Python, Flask or Django, and necessary tools for backend development.
- **Creating a Stripe Account and Navigating the Dashboard (10m)**
Get your Stripe account ready and learn to use the dashboard for managing payments and customers.
- **Building a Simple Python Backend with Flask (25m)**
Set up a basic Flask application that will serve as the foundation for your SaaS app.
- **Connecting to Stripe's API: Making Your First Request (15m)**
Use Python to authenticate with Stripe and send a test request to ensure your setup works.
- **Handling Basic Payments with Stripe Checkout (22m)**
Implement Stripe Checkout in your app to process one-time payments easily.
- **Error Handling and Debugging Your Stripe Integration (14m)**
Learn common pitfalls and how to debug issues when integrating Stripe with Python.

Core Integration: Managing Payments and Subscriptions

- **Processing One-Time Payments with Stripe API (20m)**
Dive into the code for charging customers once, with real examples and error handling.
- **Managing Customer Data in Stripe and Your Database (18m)**
Sync customer information between Stripe and your app's database for seamless management.
- **Creating and Managing Products and Prices (15m)**
Set up products and pricing tiers in Stripe, essential for subscription models.
- **Implementing Subscription Plans for Your SaaS (28m)**
Step-by-step guide to creating subscription products and handling sign-ups.
- **Handling Subscription Lifecycle Events (22m)**
Manage events like renewals, cancellations, and upgrades within your app.
- **Using Stripe Elements for Secure Payment Forms (30m)**
Integrate Stripe Elements to create custom, secure payment forms without PCI compliance hassle.
- **Setting Up and Testing Stripe Webhooks (25m)**
Learn to receive real-time updates from Stripe and trigger actions in your app.
- **Real Case Study: Building a Subscription Box Service (35m)**
Analyze a complete project from start to finish, applying all concepts learned.
- **Downloadable Template: Stripe Integration Code Base (12m)**
Get a ready-to-use code template to accelerate your development process.

Advanced Features: Invoicing, Failures, and Customization

- **Handling Failed Payments and Dunning Management (19m)**
Strategies for recovering failed payments and managing overdue invoices automatically.
- **Generating Invoices and Manual Charges (23m)**
Create invoices for custom charges and send them to customers via Stripe.
- **Working with Stripe Billing and Coupons (27m)**
Implement discounts, trials, and promotional offers to attract and retain customers.
- **Supporting Multi-Currency Payments in Your SaaS (21m)**
Extend your app to handle payments in multiple currencies for global reach.
- **Calculating and Handling Taxes with Stripe (32m)**
Integrate tax calculation and compliance features using Stripe Tax or custom solutions.
- **Building a Custom Billing Portal for Users (29m)**
Allow users to manage their subscriptions, update payment methods, and view invoices.
- **Case Study: Scaling a SaaS Payment System (36m)**
Examine how to scale payment processing as your user base grows, with performance tips.
- **Problem-Solving Session: Common Integration Issues (26m)**
Troubleshoot frequent problems like webhook delivery failures and API errors.

Building the Full SaaS Application

- **Implementing User Authentication and Authorization (24m)**
Secure your SaaS app with user logins, roles, and access controls.
- **Database Design for Subscription and User Management (20m)**
Design a database schema that efficiently handles users, subscriptions, and payments.
- **Integrating Stripe with User Accounts (26m)**
Link Stripe customer IDs to your user accounts for synchronized data management.
- **Building a User Dashboard for Subscription Management (31m)**
Create a front-end interface where users can view and manage their subscriptions.
- **Optimizing API Performance and Rate Limiting (22m)**
Ensure your app handles high traffic smoothly with caching and rate limiting strategies.
- **Real-World SaaS Architecture Patterns (28m)**
Learn architectural best practices for building scalable and maintainable SaaS apps.
- **Downloadable Template: Full SaaS App Boilerplate (16m)**
Get a complete boilerplate codebase to jumpstart your project with all features integrated.
- **Conducting Security Audits and Compliance Checks (23m)**
Perform security checks to protect user data and comply with regulations like GDPR.
- **Implementing Feature Flags for A/B Testing (19m)**
Use feature flags to roll out new features gradually and test with real users.
- **Handling Customer Support and Refunds via Stripe (25m)**
Manage refunds, disputes, and customer inquiries directly through Stripe's tools.
- **Case Study: Migrating from Legacy Payments to Stripe (33m)**
Learn from a real migration project, including challenges and solutions.

- **Designing for Mobile and Responsive Experiences (21m)**
Ensure your SaaS app works well on all devices with responsive design techniques.
- **Integrating Third-Party Services like Email and Analytics (27m)**
Connect your app to services for notifications, marketing, and data analysis.
- **Step-by-Step Guide: From Development to Production (36m)**
Walk through the entire process of preparing and deploying your app live.

Deployment, Optimization, and Next Steps

- **Deploying Your SaaS App to Cloud Platforms (29m)**
Choose and set up deployment on AWS, Heroku, or similar platforms with best practices.
- **Setting Up Continuous Integration and Deployment (23m)**
Automate testing and deployment to streamline your development workflow.
- **Monitoring Stripe Payments and Setting Up Alerts (19m)**
Use Stripe's dashboard and tools to monitor transactions and get alerts for issues.
- **Scaling Your Backend for High Traffic Loads (31m)**
Techniques for scaling your Python app, including load balancing and database optimization.
- **Cost Management and Pricing Strategy for SaaS (26m)**
Analyze costs related to payments and development, and set pricing to maximize revenue.
- **Real Case Study: Launching a SaaS Product with Stripe (38m)**
Follow a product launch from beta to live, covering marketing, payments, and support.
- **Problem-Solving Session: Post-Launch Challenges (25m)**
Address common issues after launch, such as payment failures and user complaints.
- **Exploring Advanced Stripe Features: Radar, Sigma, Connect (34m)**
Leverage Stripe's advanced tools for fraud prevention, data analysis, and multi-party payments.
- **Building a Multi-Tenant SaaS Architecture (33m)**
Design your app to support multiple tenants with isolated data and billing.
- **Legal and Compliance Considerations for Payments (21m)**
Understand legal requirements for handling payments and user data in different regions.
- **Strategies for Customer Retention Using Stripe (24m)**
Use Stripe features to reduce churn and increase customer lifetime value.
- **Future Trends in SaaS and Payment Processing (18m)**
Stay updated on emerging technologies and trends that could impact your SaaS business.
- **Final Project: Building and Deploying Your Own SaaS App (40m)**
Apply all learned concepts to create a complete SaaS application, with guidance and feedback.
- **Course Wrap-Up and Additional Resources (11m)**
Recap key takeaways and get recommendations for further learning and tools.

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