

EDGE-CSE CUET DIGITAL SKILLS TRAINING

Venue: CSE, IIUC

Training Type: Intermediate

Batch Number: **CBF-023**

Course Name: Python (Django)

Name of the Instructors with affiliations, emails and mobile number:

- i. Tanveer Rahman, Sr. Software Engineer, Friends Corp. Chuo-ku, Tokyo, JP shakil10vr@hotmail.com, 01626735005

Detail Training Schedule

Note that each slot should be of three hours and not more than a slot for a batch in a day.

Lecture	Date and Time	Topic	Location
Day 1: September 13, 2024			
Training Session - 01	9:00 am – 01:00 pm	Introduction to Python <ul style="list-style-type: none">• Overview of Python programming• Basic syntax, variables, and data types	CX401 Lab, Dept. of CSE, IIUC
Day 2: September 14, 2024			
Training Session - 02	9:00 pm – 11:00 pm	Python Control Structures-1 <ul style="list-style-type: none">• Conditional statements and loops	CX401 Lab, Dept. of CSE, IIUC
Day 3: September 20, 2024			
Training Session -03	9:00 am – 01:00 pm	Python Control Structures-2 <ul style="list-style-type: none">• Functions and modules Python Data Structures <ul style="list-style-type: none">• Lists, tuples, sets, and dictionaries• List comprehensions and lambda functions	CX401 Lab, Dept. of CSE, IIUC

Day 4: September 21, 2024			
Training Session - 04	9:00 pm – 11:00 pm	Object-Oriented Programming in Python - 1 <ul style="list-style-type: none"> • Classes and objects 	CX401 Lab, Dept. of CSE, IIUC
Day 5: September 27, 2024			
Training Session - 05	9:00 am – 01:00 pm	Object-Oriented Programming in Python - 2 <ul style="list-style-type: none"> • Inheritance and polymorphism Error Handling and File I/O <ul style="list-style-type: none"> • Exception handling • File operations (reading, writing, and managing files) 	CX401 Lab, Dept. of CSE, IIUC
Day 6: September 28, 2024			
Training Session - 06	9:00 pm – 11:00 pm	Introduction to Django <ul style="list-style-type: none"> • Setting up Django environment • Overview of Django framework and architecture 	CX401 Lab, Dept. of CSE, IIUC
Day 7: October 4, 2024			
Training Session - 07	9:00 am – 01:00 pm	Django Models <ul style="list-style-type: none"> • Creating models and migrations • Understanding Django ORM 	CX401 Lab, Dept. of CSE, IIUC
Day 8: October 5, 2024			
Training Session -08	9:00 pm – 11:00 pm	Django Views <ul style="list-style-type: none"> • Function-based and class-based views 	CX401 Lab, Dept. of CSE, IIUC

Day 9: October 11, 2024			
Training Session -09	9:00 am – 01:00 pm	Django Templates <ul style="list-style-type: none"> • Template system and template tags Django Forms <ul style="list-style-type: none"> • Handling forms and form validation • Model forms 	CX401 Lab, Dept. of CSE, IIUC
Day 10: October 12, 2024			
Training Session -10	9:00 pm – 11:00 pm	Django Authentication <ul style="list-style-type: none"> • User authentication and authorization • Implementing login and registration systems 	CX401 Lab, Dept. of CSE, IIUC
Day 11: October 18, 2024			
Training Session -11	9:00 am – 01:00 pm	Django REST Framework - Part 1 <ul style="list-style-type: none"> • Introduction to RESTful APIs • Setting up Django REST framework • Creating API endpoints 	CX401 Lab, Dept. of CSE, IIUC
Day 12: October 19, 2024			
Training Session -12	09:00 pm – 11:00 pm	Django REST Framework - Part 2 <ul style="list-style-type: none"> • Serialization and deserialization 	CX401 Lab, Dept. of CSE, IIUC

Day 13: November 1, 2024			
Training Session -13	9:00 am – 01:00 pm	Advanced Django Features <ul style="list-style-type: none"> • Middleware and signals • Caching and performance optimization Deployment <ul style="list-style-type: none"> • Deploying Django applications 	CX401 Lab, Dept. of CSE, IIUC
Day 14: November 2, 2024			
Training Session -14	9:00 pm – 11:00 pm	Maintenance <ul style="list-style-type: none"> • Best practices for maintenance and scaling 	CX401 Lab, Dept. of CSE, IIUC
Day 15: November 8, 2024			
Mid-Term Examination	9:00 am – 01:00 pm	Based on the contents of Training Session- 01 to 14	CX401 Lab, Dept. of CSE, IIUC
Day 16: November 15, 2024			
Training Session -15	9:00 am – 01:00 pm	Real-World Project - Part 1 <ul style="list-style-type: none"> • Project planning and setup • Designing database schema • Implementing core functionalities 	CX401 Lab, Dept. of CSE, IIUC
Day 17: November 16, 2024			
Training Session -16	9:00 pm – 11:00 pm	Real-World Project - Part 2 <ul style="list-style-type: none"> • Integrating third-party APIs 	CX401 Lab, Dept. of CSE, IIUC

Day 18: November 22, 2024			
Training Session -17	9:00 am – 01:00 pm	Real-World Project - Part 3 <ul style="list-style-type: none"> • Building user interfaces • Ensuring security and data protection • Testing and debugging 	CX401 Lab, Dept. of CSE, IIUC
Day 19: November 23, 2024			
Training Session -18	9:00 pm – 11:00 pm	Real-World Project - Part 4 <ul style="list-style-type: none"> • Finalizing and deploying the project 	CX401 Lab, Dept. of CSE, IIUC
Day 20: November 29, 2024			
Training Session -19	9:00 am – 01:00 pm	Real-World Project - Part 5 <ul style="list-style-type: none"> • Project review and feedback • Preparing project documentation 	CX401 Lab, Dept. of CSE, IIUC
Day 21: November 30, 2024			
Training Session -20	9:00 pm – 11:00 pm	Real-World Project - Part 6 <ul style="list-style-type: none"> • Presenting the project • Q&A and discussions 	CX401 Lab, Dept. of CSE, IIUC
Day 22: December 6, 2024			
Training Session -21	9:00 am – 01:00 pm	Advanced Topics in Django - Part 1 <ul style="list-style-type: none"> • Custom Django management commands • Advanced query techniques 	CX401 Lab, Dept. of CSE, IIUC
Day 23: December 7, 2024			
Training Session -22	9:00 pm – 11:00 pm	Advanced Topics in Django - Part 2 <ul style="list-style-type: none"> • Working with Django channels 	CX401 Lab, Dept. of CSE, IIUC

		<ul style="list-style-type: none"> Implementing real-time features 	
Day 24: December 13, 2024			
Training Session -23	9:00 am – 01:00 pm	Advanced Topics in Django - Part 3 <ul style="list-style-type: none"> Celery for asynchronous tasks Django admin customization 	CX401 Lab, Dept. of CSE, IIUC
Day 25: December 14, 2024			
Training Session -24	9:00 pm – 11:00 pm	Advanced Topics in Django - Part 4 <ul style="list-style-type: none"> Using Docker with Django 	CX401 Lab, Dept. of CSE, IIUC
Day 26: December 20, 2024			
Training Session -25	9:00 am – 01:00 pm	Advanced Topics in Django - Part 5 <ul style="list-style-type: none"> Django signals and middleware Implementing custom authentication Multi-tenancy in Django applications 	CX401 Lab, Dept. of CSE, IIUC
Day 27: December 21, 2024			
Training Session -26	9:00 pm – 11:00 pm	Advanced Topics in Django - Part 6 <ul style="list-style-type: none"> Performance optimization and scaling 	CX401 Lab, Dept. of CSE, IIUC
Day 28: December 27, 2024			
Training Session -27	9:00 am – 01:00 pm	Capstone Project Presentation <ul style="list-style-type: none"> Final project presentations Course wrap-up and feedback 	CX401 Lab, Dept. of CSE, IIUC

Day 29: January 10, 2025			
Final Examination	9:00 am – 01:00 pm	Based on the contents of Training Session- 15 to 27	CX401 Lab, Dept. of CSE, IIUC