ADVANCED PYTHON

WITH DJANGO

PROGRAMMING

PHY.C.23.1

Eligibility
UG/PG ongoing students

Course duration
30 hrs

python django

For more details contact
Course Coordinator/
HoD Physics,
All Saints' College,
Thiruvananthapuram
Or
Mail to
physicsallsaints@gmail.com

Department of Physics
All Saints' College
Thiruvananthapuram

IN COLLABORATION
WITH
Keren Infolabz

2023-2024

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All Saint's College
Thiruvananthapuram

ALL SAINT'S COLLEGE

ADVANCED PYTHON WITH DJANGO PROGRAMMING

Department of Physics

Course Syllabus

Advanced Python with Django Programming (PHY.C.23.1)

Course Objectives

The main objective of the course included:

- To acquire programming skills in core Python.
- To acquire Object Oriented Skills in Python in advanced level
- To develop the ability to write database applications in Python
- To understand Django's Features
- To enhance front-end integration skills
- To contribute to open-source projects
- To optimize application performance

Course Objectives

At the completion of course, students will be able to:

- Provide students with knowledge, general competence, and analytical skills in python programming on an advanced level.
- Prepare them for rapid, secure, and scalable web development.
- Provide hands-on experience that opens the door to multiple career opportunities

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Syllabus (30hrs)

Unit – I : Introduction to Python (6 Hours)

Basic coding skills, working with data types and variables, working with numeric data, working with string data, Python functions, Boolean expressions, selection structure, iteration structure, Illustrative Programs, Exercises

Unit – II : Define and use functions and modules (6 Hours)

Working with recursion, Basic skills for working with lists, work with a list of lists, work with tuples, work with dates and times, get started with dictionaries, Illustrative programs, Exercises.

Unit – III : Inheritance and Polymorphism (6 Hours)

Single Inheritance, Multilevel Inheritance, Multiple Inheritance, Hybrid Inheritance, Hierarchal Inheritance, IS-A Relationship and HAS-A Relationship, Duck Type Philosophy, Method Overloading, Operator Overloading, Constructor Overloading, Method Overriding, Constructor Overirding

Unit –IV : An introduction to Django (6 Hours)

History of Django, Design Philosophies, Advantages of Django, Introduction to Back-End Web Development using Django, HTTP protocol, MVC model, Virtual environment, Django structure, Generic Views, HTML templates, URL dispatcher

Unit –V : Overview and Environment (6 Hours)

MVC Pattern, DJANGO MVC, MVT Pattern, Installing Python, Installing Django, Database Setup, Web Server , Creating a Project, Create a Project , The Project Structure, Setting Up Your Project

References

- Head-First Python: A Brain-Friendly Guide (2nd Edition)
- Python Programming: An Introduction to Computer Science (3rd Edition)
- Programming Python: Powerful Object-Oriented Programming (4th Edition)
- Django for Beginners (5th Edition) : William S Vincent
- Understand Django – An Exploration of Django web framework ; Matt Laymann

Evaluation : Exam Based evaluation

Theory: 40 Marks

Practical : 30 Marks

Project: 30 Marks

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List of students attended the certificate course on Advanced Python with Django programming

2023-2024

Sl.NO.	Name	Class
1	ADITHYA SANTHOSH	MSc I Year
2	AKHILADRAVID	MSc I Year
3	ANNIE M	MSc I Year
4	ARATHY V S	MSc I Year
5	ARYA J M	MSc I Year
6	FRANCINA C FERNANDEZ	MSc I Year
7	ISMATH SULTHANA S	MSc I Year
8	KAVYASREE M S	MSc I Year
9	KEERTHY S A	MSc I Year
10	LEKSHMI R MOHAN	MSc I Year
11	MALAVIKA S	MSc I Year
12	NIRUPAMA.B.GONSALVEZ	MSc I Year
13	SHAMNA S M	MSc I Year
14	ADHEENA DAISY KOSHY	BSc III Year
15	ANAKHA S S	BSc III Year
16	SUBHANA A S	BSc III Year
17	DITHYA P SATHEESAN	BSc III Year
18	NANDHANA.A	BSc III Year
19	AMINA S J	BSc III Year
20	ANJANA SANTHOSH	BSc III Year
21	ARUNDHATI	BSc III Year
22	ASWATHY SURESH	BSc III Year
23	D SIKHA SYAM	BSc III Year
24	M S ALEENA FATHIMA	BSc III Year

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25	M SWATY	BSc III Year
26	MANJIMADAS S	BSc III Year
27	MAYA S. KUMAR	BSc III Year
28	SOORYA S M	BSc III Year
29	ADHITHYA T S	BSc III Year
30	ALISHA MARGARET SMITH	BSc III Year
31	RUKSANA RAHMAN	BSc III Year
32	SHILPA LINDEZ	BSc III Year
33	SIVA NANDA M	BSc III Year
34	LEKSHMI M B	BSc III Year
35	THANSEELA	BSc III Year
36	SRUTHI C S	BSc III Year

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Department of Physics

Course Report

Advanced Python with Django Programming (PHY.C.23.1)

A Certificate course on "Advanced Python with Django Programming for the final year Physics UG and first year PG students of All Saints' College on payment of a fee amount of Rs. 1500/- per student. The course was conducted during 18.03.24 - 12.04.24. They have adhered to a special, methodical, marketable skill development approach that is step-by-step and systematic. Thirty hours of training were done as part of this. This was undoubtedly a great opportunity for our students to gain an industry integrated awareness and match the requirements on python programming. Students were paired with a trainer, and they received instruction on the newest methods and technologies. Assessment was also undertaken to track the progress of pupils and participation certificate was awarded to all participants depending on their attendance and assessment. The course provided an in-depth understanding of data analytics, machine learning, data visualization, web scraping, natural language processing, and other related topics while focusing on the fundamentals of Python programming. Understanding the big picture behind the advantages of using Django can allow companies to make tech choices with this amazing framework for web development.

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Thiruvananthapuram, Kerala, India
143B-Allsaints College, Palayam Airport Rd, Karikkakam,
Thiruvananthapuram, Kerala 695008, India
Lat 8.496642°
Long 76.909378°
26/02/24 03:24 PM GMT +05:30

Staff Attendance Register

2023-2024 PHY C 23.1
Python with DJANGO
[40 hrs]

for

Sl.No		NAME	Days	1	2	3	4	5	6	7	8	9	10	11	12		13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Casual Leave
1.		Adheena Daisy Koshy	M	X																																	
			E	X																																	
2.		Amkha.S.S	M																																		
			E																																		
3.		Arya Mohan	M	X						X																											
			E	X																																	
4.		Dithya. P. Satheeshan	M							X																											
			E																																		
5.		Nandhana.A	M			X					X																										
			E								X																										
6.		Sruthi.c.s	M																																		
			E																																		
7.		Subhana.A.s	M																																		
			E																																		
8.		Thanseela.	M	X								X																									
			E	X								X																									
9.		Amina.S.J	M																																		
			E	Y																																	
10.		Anjana Santhosh	M	X																																	
			E	Y																																	
11.		Arundhati	M								X																										
			E								X																										
12.		Aswathy Suresh	M																																		
			E																																		
13.		D.Sikha Syam	M							Y																											
			E							X																											
14.		Lekshmi M.B	M																																		
			E																																		
15.		Aleena Fathima	M																																		
			E																																		
16.		Manjima Das	M																																		
			E																																		
17.		Maya.S.kumar	M																																		
			E																																		

Reshmi

PRINCIPAL
All Saint's College
Thiruvananthapuram

for

S.No	Reg.No	NAME	Days																																		Casual Leave
18.		N Swathy	M/E																																		
19.		Soorya·S·M	M/E																																		
20.		Adithya·T·S	M/E																																		
21.		Alisha smith	M/E																																		
22.		Shilpa Linder	M/E																																		
23.		Siva Nanda	M/E																																		
24.		Ruksana Rahman	M/E																																		
25.		Evita Mary Poduthas	M/E																																		
26.		Ismath Sulthana.S	M/E																																		
27.		Adithya Santhosh.	M/E																																		
28.		Kavya Sree·M·S	M/E																																		
29.		Shamna·S·M	M/E																																		
30.		Lekshmi.	M/E																																		
31		Annie	M/E																																		
32.		Asya·	M/E																																		
33.		Aswathy	M/E																																		
34.		Nirupama·B Gonsalvez	M/E																																		

Reshmi
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Staff Attendance Register

Sl No	Designation	NAME	Days	28/3/24	29/3/24	30/3/24	4/4/24	5/4/24	6/4/24	7/4/24	12/4/24						Casual Leave
			Date	1	2	3	4	5	6	7	8	9	10	11	12	
55		Keerthy	M													
			E													
56		Pranseena	M													
			E													
57		Akhila	M													
			E													
58		Malavika	M													
			E													

Dr. Veena Suresh Babu
course co-ordinator

Dr. Anjana. P.s
Head Dept of Physics

Prof (Dr.) Reshmi P Prasad
Principal

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KEREN INFOLABZ

CERTIFICATE

OF COMPLETION

Issued On
22/04/2024

CERTIFICATE

This is to certify that Mr/Ms. *M SWATHY*, of B.Sc. 3rd Year Department of Physics, All Saints' College, has successfully completed the 40 hour certificate course on "Advanced Python with Django" Programming jointly organized by Keren Infolabz & All Saints' College, Thiruvananthapuram in April 2024.

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(Dept. of Physics)

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Trivandrum

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Thiruvananthapuram

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OF COMPLETION

CERTIFICATE

This is to certify that Mr/Ms. *AKHILA DRAVID*, of M.Sc. 1st Year Department of Physics, All Saints' College, has successfully completed the 40 hour certificate course on "Advanced Python with Django" Programming jointly organized by Keren Infolabz & All Saints' College, Thiruvananthapuram in April 2024.

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This is to certify that Mr/Ms. _ARUNDHATHI_, of B.Sc. 3rd Year Department of Physics, All Saints' College, has successfully completed the 40 hour certificate course on "Advanced Python with Django" Programming jointly organized by Keren Infolabz & All Saints' College, Thiruvananthapuram in April 2024.

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This is to certify that Mr/Ms. *ANAKHA S S*, of B.Sc. 3rd Year Department of Physics, All Saints' College, has successfully completed the 40 hour certificate course on "Advanced Python with Django" Programming jointly organized by Keren Infolabz & All Saints' College, Thiruvananthapuram in April 2024.

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This is to certify that Mr/Ms. _ALISHA MARGARET SMITH_ , of B.Sc. 3rd Year Department of Physics, **All** Saints' College, has successfully completed the 40 hour certificate course on "Advanced Python with Django" Programming jointly organized by Keren Infolabz & All Saints' College, Thiruvananthapuram in April 2024.

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