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1	INTRO TO PYTHON - History & Installation of Python - Python Shell & IDLE - First Python Program - Types of Mode to Run Program FUNDAMENTALS OF PYTHON - print() and input() function - Variables, Datatypes & Operators - Type Casting Constructors - id() and type() functions								2	-	A C	B D								
PR1	Fundamental Booster								1	_	/	10								
2	DATATYPE IN DETAIL - String Formatting & Manipulation - Collection Datatypes with Its Methods - Mutability of list & tuple - Shallow & Deep Copy - List Comprehension - Type Casting and del keyword								2	l	A C	B D								
PR2	Collection Manipulator								1	_	/	10								
3	CONTROL STRUCTURE - Types of Control Structure - Short Hand Syntax (Ternary) LOOPING - Types of Loops - range() function - Control Statements - Nested Loop								2	l	A C	B D								
PR3	Logic Box								2	_	/	10								
4	FUNCTION IN DETAIL - Built-in Functions - UDF - *args, **kwargs anddoc - Function Recursion - Anonymous / Lambda Function - Return Multiple Values ARRAY & SORTING - 1D & 2D Array with List - Sorting Collection Datatypes								3	l	A C	B D								
PR4	Functional Treat								2	_	/	10								
5	OBJECT ORIENTED PROGRAMMING (OOP) - Class & Object - self & del keyword - Constructor and Destructor - Encapsulation - Nested Function - Reflection Enabling Functions INHERITANCE & POLYMORPHISM - Types of Inheritance - Method Overloading & Method Overriding - issubclass() and super() - Built-in Dunder Methods - Operator Overloading								4	-	A C	B D								
PR5	OOP Wrapper								2	_	/	10								

6	EXCEPTION HANDLING - try except - try except else - try finally		A B	
	- try except else finally - Custom Exception - raise & assert keyword	2	C D	
PR6	Exception Killer	1	/10	
E1	Viva & Examination	1	/10	
7	FILE HANDLING - Modes of Opening File - CRUD operation with File	1	A B C D	
PR7	File Operator	1	/10	
8	WORKING WITH MODULES - datetime module - time module - math module - random module - operator module - uuid module	2	A B	
PR8	Moduler	1	/10	
9	MODULES AND PACKAGES - Creating, Importing & Renaming Modules name withmain - Creating & Using Package and Sub Packages - dir() andinitpy	1	A B C D	
PR9	Packager	1	/10	
10	REGULAR EXPRESSION (REGEX) - re module - Getting specific pattern wise data COMMAND LINE ARGUMENT (CLA) - sys module - sys.argy	2	A B C D	
PR10	RegEx Commander	1	/10	
11	PIP – PACKAGE MANAGER & DATABASE INTERACTION (WITH MYSQL) - What is SQL? - SQL Queries - Intro to XAMPP (phpMyAdmin) - CRUD operation with XAMPP (phpMyAdmin) - Downloading and Installing Package - mysql-connector module - CRUD operation with python's mysql.connector	4	A B C D	
PR11	DB Miner	2	/10	
12	GUI WITH TKINTER - tkinter module - widgets and grid() - Binding Functions - Mouse Clicking Events - messagebox() and PhotoImage()	5	A B	
PR12	Software Combo	5	/10	
E2	Viva & Final Exam	2	/100	

NOTE:

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	One Step In Changing Education Chain	FACUI	LTY N	AME																	
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1	OS & SUBPROCESS MODULE - Basic terminal commands - os module - subprocess module with call() & Popen()									3	_	A C	B D								
PR1	Executor									3		/	10								
2	MULTITHREADING & EMAIL - What is thread in a process? - threading module - Working of email sending through Internet - smtplib module - email package									3	-	A C	B D								
PR2	Multi-threader & Mailer									3	_	/	10								
3	ITERATORS, GENERATORS & CLOSURES iter() &next() - iter() & next() - yield keyword - Generator Function - Generator Object - global, local & nonlocal variables									3	_	A C	B D]							
PR3	UDL									1		/	10								
4	HIGHER ORDER FUNCTIONS - sorted(), map(), reduce() & filter() DECORATORS - Simple Decorator - Chaining Decorator - @classmethod & @staticmethod - property() & @property									3	-	A C	B D								
PR4	Fast Food Maker									1	_	/	10								
5	VIRTUAL ENVIRONMENT - virtualenv - venv - requirements.txt - pipenv									2		A C	B D								
E1	Viva and Examination									1	ı	/	10								
6	WORKING WITH EDITORS & IDLE - Sublime Text 3 - VS Code - Anaconda Navigator - PyCharm IDE DATA ANALYSIS WITH NUMPY - NumPy library - NumPy Datatypes - Array Indexing - Array Math & Broadcasting - 1D & 2D Array									5		A C	B D								
PR5	- Arithmetic Operations on 2D Array NumPy Analyzer									3		/	10								
7	HOT MODULES OF PYTHON - qrcode mlibrary - pyinstaller library - csv module									4	_	A C	B D								

PR6	Hunter		6	/10	
8	DATA ANALYSIS WITH PANDAS - Pandas Library - Data Structure - Operations on DataFrames - Handling missing data - Boolean Reductions - Combining DataFrames - pivoting, sorting & aggregation - Descriptive Statistics - Types of Function Application - groupby() & transform() - Re-indexing& altering labels		5	A B C D	
PR7	Pandas Analyzer		2	/10	
9	DATA VISUALIZATION - matplotlib library - Types of Charts with pyplot		2	A B C D	
PR8	Visualizer		2	/10	
10	NETWORKING - What is Socket & Port? - What is Client & Server - socket module - Socket Programming		2	A B C D	
PR9	Chat App		3	/10	
11	WEB SCRAPPING - requests library - beautifulsoup library WEB AUTOMATION - selenium library - Different browser's WebDrivers		4	A B	
PR10	Scrapper & Bot		4	/10	
12	JSON PARSING - What is json? - json module - Serialization & Deserialization of data - Read and Write json data with File - Working with live json API data		3	A B	
PR11	Fetcher & Parser		5	/10	
13	Intro to Web Development - Basic HTML - What is Framework - Installing Flask microframework and Run first web app - Routing and Variable Rules - URL Building - HTTP Methods - Templates - Static Files - Sending Form data to Template - File Uploading		12	A B C D	
PR12	Resume Builder		5	/10	
E2	Viva and Final Exam		2	/100	

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1	INTRO TO DJANGO FRAMEWORK - What is Web Framework? - MVT Architecture - Setup Virtual Environment - Installing Django - Exploring Directory Structure - Creating First Django Project SETTING UP DJANGO WEB APP - Creating First Django App - Understanding URL Routing - Handling different Views - Running Web App on Server											з	-	A C	B D									
PR1	Quick Booster											1	-	/	10									
2	TEMPLATES WITH DTL (DJANGO TEMPLATE L - Setup Template directory's Path - Creating and Rendering Templates using URL Routi - Passing Context in Multiple Templates - Using DTL to load context in Template - Tags, Variables & Filters - Template Inheritance		iE)									3	-	A C	B D									
PR2	Templatifier											1	1	/	10									
3	FORM HANDLING - Raw HTML Form - Pure Django Form - Form Widgets - Display Form to Multiple Templates											3		A C	B D									
PR3	Form Maker											2	-	/	10									
4	URL ROUTING - Dynamic URL Routing - Creating and Linking Multiple Apps - In App URL Routing & Namespacing - Django URLs Reverse											2	-	A C	B D									
PR4	Navigator											2	-	/	10									
5	VIEWS AND MIXINS - FBV (Function Based Views) - CBV (Class Based Views) - Convert FBV to CBV - Custom Mixins for CBV											3	-	A C	B D									
PR5	View Mixer											2	-	/	10									
6	STATIC FILE HANDLING - Setup static and media directory's Path - Adding Bootstrap for Frontend Enhancement - Collect Static Files *											2	-	A C	B D									
PR6	Asset Bundler											1	_	/	10									
E1	Viva and Examination											1	_	/	10									

				
	WORKING WITH MODELS			
	- Django Database Models			
	- Model Fields			AB
7	- Model Inheritance			
	- Add an App to INSTALLED_APPS		2	CD
	- Migrating Models to Database		2	
	- Update Models and Migrate			
PR7	Migrator			/10
1 117	migrator		1	/10
	DAP (DJANGO ADMIN PANEL)			
	- Creating Superuser			
	- Exploring DAP			AB
8	- Manage Superuser			
	- CRUD Operations with DAP			CD
	- @admin.register()		2	
	- Customizing DAP			
PR8	Thrill Explorer			/10
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	ORM (OBJECT RELATIONAL MAPPER)			A D
_	- Using Django python-shell			AB
9	- Using ORM to deal with Database			G D
	- CRUD Operation using ORM		2	CD
	- Retrieve data using filters			
PR9	DB Miner			/10
לחיו	DD ITHING!		1	/10
			1	
	DYNAMIC TEMPLATES			
	- Dynamic Webpages			
	- Retrieve data using QuerySets			
	- Passing context to Template			AB
10				
	FORM VALIDATION			CD
	- Django ModelForm		2	
	- Form Validation Methods		3	
	- Setting initial values for Forms			
				4.5
PR10	Form Commander			/10
			1	
	WORKING WITH ANOTHER DATABASE			AB
11	- Integrating MySQL Database			
	- Using XAMPP for Database Interaction		1	CD
PR11	Teleporter			/10
			1	
	USER AUTHENTICATION			
	- @login_required decorator for FBV			AB
12	- LoginRequiredMixin for CBV			- -
	- login(), logout() and authenticate() methods		2	CD
	- get_object_or_404() method		_	
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PR12	Safe Area			/10
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				40
E2	Viva and Examination		4	/10
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	CREATING ADICUSING DRE (DIANGO DEST FRANCIACORIA)			
ĺ	CREATING APIs USING DRF (DJANGO REST FRAMEWORK)			
1	- Intro and Installing DRF			АВ
13	- Add DRF to INSTALLED_APPS - Adding REST_FRAMEWORK in settings.py			
13	- Adding REST_FRAMEWORK in Settings.py - What is Serializer and Deserializer?			CD
	- What is Serializer and Deserializer? - Serializer Class and ModelSerializer Class		5	
	- APIs using Serializers, FBV, CBV, Model Mixins and Generic API Views		,	
	22 Secretarizers, 1917, 691, infoder mixing and deficite Art views			
PR13	API Digger			/10
5			2	/
1	TESTING PROMISABLE ADV			A D
	TESTING BROWSABLE APIS			AB
14	- Using DRF's URL		_	C D
1	- Using Postman		1	CDD

PR14	Test a Taste		1	/10	
15	ROUTING AND AUTHENTICATIONS IN DRF - Types of ViewSets - Types of Routers - authentication_classes and permission_classes properties		3	A B	
PR15	Watchman		1	/10	
16	DOCUMENTING APIs - Using drf-yasg package - Integrating drf-yasg into settings.py - Generating APIs Docs - Test browsable APIs using drf-yasg's url		1	A B C D	
PR16	Scarecrow		1	/10	
17	PUBLISHING DJANGO WEB APPLICATION - Deploy on GitHub - Deploy on pythonanywhere - Collect Static Files *		3	A B C D	
PR17	Publish a Web App		1	/10	
E3	Final Exam		1	/100	

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