## Chapter 13 - Advanced Python 2

Virtual Environment
An environment which is same as the system interpretor but is isolated from the other python environments on the system.

Installation Installation
To use virtual environments, we write

pip install virtualenv → Install the package

We create a new environment using:

Virtualenv myprojectenv - creates a new venv

The next step after creating the virtual environment is to activate it.
We can now use this virtual environment as a separate python installation.

pip freeze command
pip freeze returns all the packages installed in
a given python environment along with the versions

pip freeze > requirements txt

The above command creats a file named requirements tot in the same directory containing the output of pip freeze.

We can distribute this file to other users and they can recreate the same environment using:

pip install - r requirements txt
Lambda functions
functions Created using an expression using lambda
Remword
Suntax:
Lambda functions  functions created using an expression using lambda  keyword  Syntax:  lambda arguments: expressions  Lambda arguments: expressions  Finanction
tampar wagamans, construs
Evamble:
Example:
Square = lambaa x . x * x
Square = lambda x: x*x  Square (6) -> returns 36
Sum = $ ambda \ a, b, C : a+b+C$ Sum (1, 2, 3) $\rightarrow$ returns 6
Sum (1, 2, 3) - returns 6
'tail tudmi
bin method (Strings) Creates a string from iterable objects
Creates a string from iterable objects
l = ["apple", "mango", "banane"]
THE STATE OF THE PARTY OF THE STATE OF THE S
"and," join (l)
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
The above line will return "apple, and, mango, and, banana"
and and added a so has
Council mather (Steines)
formats the values inside the string into a desired
1 automo tree
output
but Gu of Ch h
template format (p, p2)
- arguments
The content of the co
I the sunther Computer Cive of this manufact and the

100	
	Syntax for format looks like:
	" { } is a good { }" format ("Harry", "boy") -0
	ADDRESS DECLE TO BE STORY STEEL AND DEPOSIT DESCRIPTION OF STANDARDS
	" { 1} is a good { 0} · format ("Herry", "tog") - 2
	XO NUC
	Output for 10 Marry is a good boy
	Marry is a good boy
	The state of the s
	Output for @xxx x addma = axamad
-	Output for @ Marry boy is a good Harry
-	Map, Filke & Reduce
	Map applies a function to all the items in an
+	Map, Filke & Reduce Map applies a function to all the items in an input list
-	Syntax: Can be lambda function map (function, input list)
-	Symbol :
	map (function, Input_list)
	Filter creates a list of items for which the function returns true.
	tille occases a list of 1/0/0 for which the fatheries
	YEAUVIS TULL.
-	list (filter (function))  Less Can be a lambda function
SA	→ Can be a lambda function
	Somat method (Stanos)
	Reduce applies a rolling computation to sequential pair
	of elements
	The second secon
	from functools import reduce  val = reduce (function, list1)  Let can be a lambda function
	val = reduce (function, list1)
	Lan be a lambda function
	If the function computes sum of two numbers and the

EDG3 1,2,3,4] => Sequential Computation 10