	ndament	۵۱۰	urages Dec			C-	1 °	-	But this is a	limitation		r C		of the
To In	ven data- deal wit this worl d a singl	set they h the dis kshop we e output	may not go advantage e will work	with a data abel) that i	a-set rela indicate i	decision ating to D	trees to c Diabetes. T quired Dia	over-fit, The data	ey also have we will look n-set contain We will use	cat a numl	ber of me	ethods for	r dealing w	rith that
Thi lea	nstructis workborning or	ook inclu this cou	s for S udes some urse. This ac the followi	empty coccitivity is inc	de-blocks dicated i	s. In those n the wor se do the	e cases yo rkbook be e following	u are re low wit	equired to co h a ' Studen			he block l	based on y	our pre
	2. Enter a 3. Execu 4. You do 5. You m 6. You m 7. Enter a	all of the te each of not ned ay add y add fund and run a	of the code ed to replice your own co- urther code as many of	e blocks to cate all of to mments a e blocks to the code b	his notebook of check yethe expland description of the control of	oook into your unden anatory / ription in eent with you can	erstanding tutorial te to text (ma the comm within the	xt in tex arkdow nands a e time a	vour notebookt (markdown) blocks if nd try out ovailable dur	n) blocks it helps yo ther thing ing class	S		the comm	ands do
The up	8. After a number dated ea	class, enders shown ach time	ter and run in the 'In a block is e	n any remain [n]' text or executed.	ining coon	de blocks pyter not g th	that you l	have no	ot been able	to comple			pecause the	ey are
: ii if fi ff	mport mport mport mport mport rom sk rom sk rom sk	numpy apandas ndas.pl matplot seaborn learn.m learn.t	as pd otting in lib.pyplo as sns odel_sele ree impor	mport sca ot as plt ection in rt Decisi import Ra	atter_m t mport t ionTree andomFo	atrix rain_te Classif restCla	ier ssifier							
f f f f f f f f f f	From sk From sk From sk From sk From sk	learn.e learn.m learn.m learn.t learn.t ng the d .read_c	ensemble interiors in metrics in model_selectron important important important in model_selectron important in model_selectron important	<pre>import Ra mport cor mport plo ection in rt plot_t</pre>	andomFo nfusion ot_conf mport G tree	restCla _matrix usion_m	ssifier atrix							
	lf.head	()				35 29 0 23	0 33.6 0 26.6 0 23.3 94 28.1	6 6 3	etesPedigree	0.627 0.351 0.672 0.167	Age Out 50 31 32 21	1 0 1 0		
In nu nu	mber of mber of	0 -set the people v positive	137 label is the	40 'Outome' ped diabe uild a reasc	tes than onably pr	35 This cont people w redictive	168 43.1 tains '1' if t	1 the pers	son develop nown by the	2.288 oed diabeto	33 es and '0'	1 ' otherwis		
count	500 - 400 - 300 -													
We	100 -	iew othe	o er features i	Outcome in the same	i e way.									
ab	out whic	h of thes	stitute varions se you find x = "Preg	useful cha	orts and v	vhich you	ı do not.	e follow	ring function	n. That is, r	eplace 'P	regnancie	es' with 'Ao	ge' etc.
count	100 - 80 - 60 - 40 - 20 -	l		li.	.									
	lf.desc		shops we c	Pregnancies	an overa	13 14 15	ical' view o	of the d	ata using th	ne Pandas DiabetesPe			ı: Age	Outco
m	ount 70 nean std min 25%	3.369578 0.000000 1.000000	120.89453 31.97261 0.00000	1 69. ⁻ 8 19. ⁻ 0 0.0 0 62.0	000000 105469 355807 000000 000000	768.000 20.536 15.952 0.000 0.000	5458 79.7 2218 115.2 0000 0.0	299479 244002 200000 200000	768.000000 31.992578 7.884160 0.000000 27.300000 32.000000		0.4 0.3 0.0 0.2	331329 1 978000 2 243750 2	58.000000 33.240885 11.760232 21.000000 24.000000	0.3489 0.4769 0.0000 0.0000
On The	75% max reviewi ere are a	6.000000 17.000000 ng this d Ilso zero	140.25000 199.00000 ata we can values for '	0 80.0 0 122.0 see that co	000000 000000 ertain va ness', 'Ins	32.000 99.000 lues seen sulin' and	0000 127.2 0000 846.0 m to be mi	250000 000000 issing. F	36.600000 67.100000 For example which can be	e correct.	0.6 2.4	26250 4	41.000000 31.000000	1.0000
C	lf[['Gl lf.head	ucose', () ncies Glu	'BloodPre	essure',	'SkinTh	ickness	','Insul	in','E	with 'NaN'	petesPedi			'Age']]	= df[[
2 3 4 Thi		8 1 0 that we	183.0 89.0 137.0 can use the	64.0 66.0 40.0 e easy, bui		NaN 23.0 35.0 das funct	NaN 23.3 94.0 28.1 168.0 43.1 tion to rep	3 1 1 blace Na	aN values w	0.672 0.167 2.288 ith impute	32 21 33	1 0 1		
Pri GI BI SI Irr BN Di	regnanc lucose loodPre kinThic nsulin MI iabetes	ies ssure kness		0 0 0 0 0 0	True)	#Filled	Mising	values	s with Mea	411				
Ac Ou dt	ge atcome type: i e have in	nt64 troducec	d various ot	0 0 ther ways o	•				to identify in			ncluding	'scatter_m	atrix':
BloodPressure Glucose	50 -													
	60 - 20 - 80 -													
a	20	ୁଞ୍ଜି Glucose elation m		ୁ ତୁ Pressure	07 BMI	60 -	ନ୍ତ Age	75						
s a h	correla sns.set ax = sn oottom,	tion_ma (rc={'fs.heatm top = ylim(bo	trix = ng igure.fic ap(correl ax.get_yl ttom + 0.	gsize':(7 lation_ma lim() .5, top -	7,7)}) atrix, - 0.5);	annot =T	rue, cma	p='Rec	ds')					
		Pregnand Gluc BloodPress SkinThickn	ose 0.13	_	0.19 0.	42 0.23	0.14 0.27		- 0.8 - 0.6					
Di	iabetesPed	ligreeFunc	BMI 0.02	0.42 0.070.23 0.280.14 00.27 0.32	0.54 0.	17 1	0.15 0.03 1 0.03		- 0.4 - 0.2					
		Outco	Pegnancies	O.49 O.17 Glocose allocations of the control of the		21 0.31	OiabetesPedigreeFunction Age	Outcome	- 0.0					
	Build		the Ma		0)		JiabetesPedi							
Th	Deci			odel										
f	port the	ision Todel we were required	Tree will create i I libraries:	is a basic'[rt Decisi	ionTree	Classif	ng the skle	earn libi	rary.					
: ff ff Sp Cre Tit : n : De D	port the from sk from sk from sk lit the data and el.f ecision standard for the ecision standard for th	ision Todel we were required learn.the learn.the learn.the lata into in loc[:,''Outcome model of the learn that it (x, y) TreeClarying ure (figure (model of model of learn) that it (x, y) the learn that it (x, y) the lear	will create in dibraries: Tree importance i	rt Decisirt export and label (ies':'Age assifier max_deptl ee as (, 10))	ionTreet_graph (y): e'] (random_ h=3, ra a Gra # Adjus	Classif viz _state= ndom_st phic t the f	ier 0, max_d ate=0) Glu sate=n	lepth =	needed edf.colum	nns) # 2	Adjust t	The font	size as	desire
Sp Sp Sr	port the From sk From sk From sk It the da R = df. R = df[Reate the R the data Anodel = The data Anodel figure of the data Color figure	ision Todel we were required learn.the learn.the learn.the lata into in loc[:,''Outcome model of the learn that it (x, y) TreeClarying ure (figure (model of model of learn) that it (x, y) the learn that it (x, y) the lear	will create in dibraries: Tree importance i	rt Decisirt export and label (ies':'Age assifier max_deptl ee as (, 10))	ionTree t_graph (y): e'] (random h=3, ra a Gra # Adjus fontsiz	Classif viz _state= ndom_st phic t the f	ier 0, max_d 0, max_d cate=0)	depth =	meeded edf.colum	ose <= 145.5 ne = 0.435 neles = 7.5 e = [51, 24]	BMI « gini = sampl	che font	Glucose Glucose Glucose Guine = Glucose Glucose Guine = Glucose Glucose Guine = Glucose Glucose Guine = Glucose Glucose Guine = Glucose Gl	= 157.5 402 = 208
Sp S	port the from sk from sk lit the da a = df. b = df[eate the from sk lit the da a = df. a = df[eate the from sk lit the da a = df[eate the from sk lit the da a = df[eate the from sk lit the da a = d	ision Todel we were required learn.thata into in loc[:,''Outcome model of the local state	will create in dibraries: Tree importance i	assifier Age <= 28.5 gini = 0.313 samples = 1391, 9	ionTree t_graph (y): e'] (random h=3, ra a Gra # Adjus fontsiz	classif viz _state= ndom_st phic t the fee=12, fee=12, fee=12, fee=12, fee=12, fee=12, fee=143, fe	ier 0, max_d 0, max_d ate=0) Glu sature_n Glu savalu Glu savalu	lepth = leose <= 12 gini = 0.454 amples = 76 ue = [500, 2	reeded df.colum gini = 0.255 sample = 34, 6]	se <= 145.5 ni = 0.435.5 nples = 75 e = [51, 24]	BMI « gini = sampl	s= 29.95 = 0.474 es = 283 [109, 174]	Glucose <- gini = 0 samples	= 157.5 402 = 208 3, 150]
Specific Spe	gini = 0 samples value = [2.	ision Todel we warequired learn.the learn.the lata into in loc[:,'outcome model of the local learn. The loca	will create in dibraries: Tree importance i	Age <= 28.5 gin == 28.5 gin == 3.1 samples == 48 value = [391, 9] Age <= 28.5 gin == 28.5	ionTree t_graph (y): e'] (random h=3, ra a Gra # Adjus fontsiz the 'max en the gr	classif viz _state= ndom_st phic t the fe=12, fe=12, fe=143, 7	ier 0, max_d 0, max_d ate=0) Glu ate=0) Glu sature_n Glu sature_n Glu sature_n ay too larg	depth = lepth = lep	reeded df.colum gini = 0.255 sample = 34, 6]	sse <= 145.5 ni = 0.435 noples = 75 e = [51, 24] fini samp value s	BMI samply value =	gini = sample value =	Glucose <- gini = 0 samples value = [5i enerate the enerate the	= 157.5 402 = 208 3, 150] gini = samp value =
Specific Spe	gini = 0 samples value = [2. gini =	ision Todel we warequired learn.the learn.the learn.the lata into in loc[:,''Outcome model of the learn of the learn.the learn.the lata into in loc[:,''Outcome model of the learn.the lea	will create in dibraries: I libraries: I ree imporance	Age <= 28.5 gine 10.313 sample s. 48t value = [391, 9] Age <= 28.5 gine 2.313 sample s. 48t value = [391, 9] Changing the color of th	ionTree t_graph (y): e'] (random h=3, ra a Gra # Adjus fontsiz the 'max en the gr e method a set to a over-fitti s are rem ail is beyo	Classifviz State= andom_st phic t the fe=12, fe=143, 7 depth = aphic ma defor preventing the formula of the state of	gini = 0.482 ate=0) Glu gini = 0.482 ate=0 ate=	e other e to dis er-fittin cosing e tree. T s the sn his cours	gini = 0.255 samples = 40 values. gin Decision g in Decision	t may take an Trees. It fective decorate for information, if you are	BMI simply value = 10.5 les = 35 les = 35 les = 35 les = 35 les interestion and the interestical and the interest	gini = sample value = ses) on tree decision red in this,	Glucose <- gini = 0 samples value = [5] enerate the enerate the enerate the enerate the enerate the enerate succe making point, after the enerate the enerate succe making point, after the enerate the enerate succe making point, after the energian energian energy ener	graphi graphi graphi samp value:
Sturm De Cree fit me	port the from sk from sk lit the da a = df. a = df[eate the from sk lit the da a = df. a = df[eate the from sk lit the da a = df. a = df[eate the from sk lit the da a = df. a = df[eate the from sk lit the da a = df. a = df[eate the from sk lit the da a = df. a = df[eate the from sk lit the da a = df. a = df[eate the from sk lit the da a = df. a = df[eate the from sk lit the da a = df. a = df[eate the from sk lit the da a = df. a = df[eate the from sk lit the da a = df. a = df[eate the from sk lit the da a = df. a = df[eate the from sk lit the da a = df. a = df[eate the from sk lit the da a = df[eate the from sk lit the l	ision Todel we ware required learn. the lear	will create in distributions in the last of the last o	Age <= 28.5 grie o.313 samples (1.0) / d=True, find the inclusion of the i	ionTree t_graph (y): e'] (random h=3, ra a Gra # Adjus fontsiz fontsiz and en the graph en the graph the 'max en the graph and a set to a over-fitting s are remail is beyong rg/stable ameter colusion of (random)	classifviz _state= _ndom_st phic t the fee=12, fee	ier o, max_d o, max_d o, max_d ate=0) figure si eature_n ate=0, figure si eature_n o, max_d for the attribute side of the amount attribute side of the a	e other e to dis er-fittin oosing tree. T s the sn is cours ee/plot t of pru rameter	gini = 0.255 samples = 40 values. gin Decision the most ef this means the mallest loss of the see. However	t may take that nodes of information, if you are lexity_prureduction.	BMI samply value = 0.5 samply value = 10.5 sles = 35 les = 17, 18] The along time to a long time time time time time time time time	gini = 283 [109, 174] gini = sample value = sample	Glucose <a 0<="" =="" href="mailto:gini" td=""><td>graphi graphi graphi samp value s ssively wer. worksh mples-</td>	graphi graphi graphi samp value s ssively wer. worksh mples-
Student Special Specia	gini = 0 strom sk lit the data a = df. a = df[eate the step hodel = the data hodel.fi ecision ispla olt.fig olt.fig olt.sho lit.sho a te: If the le 'max_c low a ce ts to a d more sop moved a scribing ay wish to olt.fig	ision Todel we wanted to the arm. the arm. the arm. the arm. the arm. the arm of the arm. the arm of the arm. The arm of	will create in the interest of the tree important (x's) a ree important (x's) a ree important (x's) a ree important (x's) a resident (x's) a remodel: """ """ """ """ """ """ """	assifier Age <= 28.5 gni= 0.313 assifier Max_deptl Age <= 28.5 gni= 0.313 samples d=True, fi to large the trees ovides one es the data oly stops. oreventing The node that in deta kit-learn.or py alpha' para in the incl assifier out_file e_names = in d = True, in the incl assifier out_file e_names = in d = True, in the incl	ionTree t_graph t_graph (y): e'] (random h=3, ra a Gra # Adjus fontsiz fontsiz en the gr e method a set to a over-fitti s are rem ail is beyo rg/stable ameter c usion of (random e diab e x.col y biabe filled # Adjus	classif viz _state= _state= _ndom_st phic t the f e=12, f e=12, f aphic ma for prev certain c ing is to ' noved wh ond the s e/auto_ex ontrols th the 'ccp_ _state= etes_tr umns, tes', 'N rt= True t the f	ier o, max_d o, max_d ate=0) figure si eature_n gini = 0.482 samples = 175 alue = [104, 71] 3' to som ay too larg venting over degree, che camples/tr he amount alpha' par o, max_d ee.dot', ot diabe false,) igure si	e other e to dis er-fittin cosing e tree. T s the sm is cours ee/plot t of pru rameter depth =	gini = 0.255 sample = 54, 6] values. splay. Also, i this means the most efficient of	t may take an Trees. It fective decorate information in free codultree Classical phase of the classical phase of the codultree classical phase of the codultree classical phase of the classical phase of the classical phase of the classical phase of the classical ph	BMI samply value = samply value = simply p cision at 6 (branche tion and	gini = sample value =	Glucose = 0 gini = 0 samples value = [5i enerate the enerate the enerate the enerate the enerate succe making point, after the enerate the enerate the enerate succe making point, after the energy point, after the energy point after the	graphi graphi graphi graphi samp value =
Student Space Student Space Student Space	gini = 0 samples value = [2 gini = 0 samples value = [2 gini = 0 samples value = [2	ision Todel we wanted to the arm. the arm. the arm. the arm. the arm. the arm of the arm. the arm of the arm. The arm of	will create in the interest of the tree important of the importan	assifier Age <= 28.5 gamples = 18.3 amples	ionTree t_graph t_graph (y): e'] (random h=3, ra a Gra # Adjus fontsiz fontsiz and is beyone as set to a over-fitti s are remail is beyone as set to a over-fitti s are remail is beyone all is beyone fontsiz fontsiz fontsiz fontsiz fontsiz fontsiz fontsiz	classif viz _state= _state= _ndom_st phic t the f e=12, f e=12, f aphic ma for prev certain c ing is to ' noved wh ond the s e/auto_ex ontrols th the 'ccp_ _state= etes_tr umns, tes', 'N rt= True t the f	gini = 0.482 ier 0, max_d ate=0) Glu salue = [104, 71] 3' to som ay too larg venting over clarges, che che amount alpha' par 0, max_d ee.dot', OT diabe igure si eature_n	e other e to dis er-fittin cosing e tree. T s the sm is cours ee/plot t of pru rameter depth =	gini = 0.255 samples = 40 values. splay. Also, i g in Decision the most ef this means the most eff this means the most eff	t may take an Trees. It fective decorate information in free codultree Classical phase of the classical phase of the codultree classical phase of the codultree classical phase of the classical phase of the classical phase of the classical phase of the classical ph	BMI samply value = samply value = samply value = simply p cision at 6 (branche tion and the interest of the point of the control of the point of the control of the con	gini = sample value =	Glucose = 0 gini = 0 samples value = [5i enerate the enerate the enerate the enerate the enerate succe making point, after the enerate the enerate the enerate succe making point, after the energy point, after the energy point after the	graphi graphi graphi graphi samp value =
Student Special Specia	gini = 0 samples value = [2 gini = 0 samples value = [2 gini = 0 samples value = [2	ision Todel we wanted to the arm. the arm. the arm. the arm. the arm. the arm of the arm. the arm of the arm. The arm of	will create in dibraries: ree importance im	Age <= 28.5 gin = 0.313 samples = 480 value = [391, 9 Age <= 28.5 samples = 480 value = [391, 9 assifier assifier and label (ies':'Age assifier bo large the trees ovides one es the data oly stops. breventing The node that in deta kit-learn.o py alpha' para in the incl assifier out_file e_names = called = True, in the incl assifier out_file e_names = called = True, in the incl assifier out_file e_names = called = True, in the incl assifier out_file e_names = called = True, in the incl assifier out_file e_names = (called = True, in the incl assifier out_file e_names = (called = True, in the incl assifier out_file e_names = (called = True, in the incl assifier out_file e_names = (called = True, in the incl assifier out_file e_names = (called = True, in the incl assifier out_file e_names = (called = True, in the incl assifier out_file e_names = (called = True, in the incl assifier out_file e_names = (called = True, in the incl assifier out_file e_names = (called = True, in the incl assifier	ionTree t_graph t_graph (y): e'] (random h=3, ra a Gra # Adjus fontsiz fontsiz and is beyo rg/stable ameter colusion of (random e='diab = x.col y'Diabe fontsiz fontsiz fontsiz	classif viz _state= _state= _ndom_st phic t the f e=12, f e=12, f aphic ma for prev certain c ing is to ' noved wh ond the s e/auto_ex ontrols th the 'ccp_ _state= etes_tr umns, tes', 'N rt= True t the f	ier 0, max_d 1, ate=0) 1, ate=0) 1, ate=0) 1, ate=0) 1, ate=0) 2, ate=0) 2, ate=0) 2, ate=0) 3, ate=0) 4, ate=0) 4, ate=0) 2, ate=0) 4, ate=0) 2, ate=0) 3, ate=0) 4, ate=0) 4, ate=0) 4, ate=0) 4, ate=0) 5, ate=0) 6, ate=0) 6, ate=0) 7, ate=0, a	e other access = 12 gini = 0.454 amples = 76 access = [500, 2 access = [500, 2 access = 12 access = 12	gini = 0.255 sample = 54 value = [34, 6] values. splay. Also, i gin Decision the most ef his means the hallest loss of the se. However the cost comp ning. Most to Decision and the column needed and for column needed	t may take an Trees. It fective decorate information in free codultree Classical phase of the classical phase of the codultree classical phase of the codultree classical phase of the classical phase of the classical phase of the classical phase of the classical ph	BMI samply value = samply value = samply value = simply p cision at 6 (branche tion and the interest of the point of the control of the point of the control of the con	gini = sample value =	Glucose = 0 gini = 0 samples value = [5i enerate the enerate the enerate the enerate the enerate succe making point, after the enerate the enerate the enerate succe making point, after the energy point, after the energy point after the	graphi graphi graphi graphi samples- blocks t max_c
Students of the state of the st	gini = 0 samples value = [2 gini = 0 samples value = [2 gini = 0 samples value = [2	ision 7 odel we was required learn. the lear	will create in dibraries: ree importance im	assifier Age <= 28.5 gamples = 18.3 amples	ionTree t_graph ty): et_graph (random h=3, ra a Gra # Adjus fontsiz the 'max en the gr e method a set to a over-fitti s are rem ail is beyo rg/stable ameter c usion of (random e_'diab = x.col g' Diabe fontsiz fontsiz	classif viz _state= _state= _ndom_st phic _t the f e=12, f _depth = aphic ma depth = aphic ma depth = aphic ma depth = aphic ma aphi	ier 0, max_d 1, ate=0) 1, ate=0) 1, ate=0) 1, ate=0) 1, ate=0) 2, ate=0) 2, ate=0) 3, ate=0) 4, ate=0) 4, ate=0) 4, ate=0) 4, ate=0) 5, ate=0) 6, ate=0) 7, ate=0, 7, ate=	e other le to dis er-fittin oosing e tree. T s the sn is cours ee/plot t of pru rameter le to f pru rameter le pth =	gini = 0.255 samples = 4.0 values. splay. Also, i g in Decision the most eff this means the mallest loss of the most eff this means the mallest loss of the most eff this means the mallest loss of the most eff the	t may take an Trees. It fective decorate information in the code i	BMI samply value = samply value = samply value = simply p cision at 6 (branche tion and the interest of the point of the control of the point of the control of the con	gini = sample value =	Glucose = or gini = 0 samples value = [5i] enerate the enerate enerate the enerate the enerate enerat	graphi graphi graphi graphi samples- worksh mples- blocks max_c
Students of the students of th	gini = 0 samples value = [2 udent ta the data the da	ision Todel we was required the arm. the transmit at a into in the arm. the transmit at a into in the arm. The transmit at a into in the arm. The arm of t	will create in the libraries: ree importance importanc	changing to large the detail of the included by stops. The node of the detail of the included by stops. The node of the included by stops.	ionTree t_graph t_graph (y): e'] (random h=3, ra a Gra # Adjus fontsiz the method a set to a over-fitti s are rem ail is beyo rg/stable ameter c usion of (random e 'diab e x.col ['Diabe y propo filled # Adjus fontsiz simple b ed in the d'#Step	classif viz _state= _ndom_st phic the feel2, f and samples = 21 alue = [143, 7] and samples = 21 alue = (143, 7) and samples = 31 and samples = 32 alue = (143, 7) and samples = 32	ier 0, max_d 0, max_d 1, ate=0) 1, ate=0) 1, ate=0) 1, ate=0) 2, ate=0) 3, ate=0) 4, ate=0) 6, ate=0) 6, ate=0) 7, ate=0, ate=	e other le to dis er-fittin oosing e tree. T s the sn is cours ee/plot t of pru rameter lepth = lepth = lose <= 12 giniples = 12	gini = 0.255 samples = 4.0 values. splay. Also, i g in Decision the most eff this means the mallest loss of the most eff this means the mallest loss of the most eff this means the mallest loss of the most eff the	t may take an Trees. It fective decorate for information of the codular formation of the codular	BMI samply prision at each of the state of t	gini = 29.95 = 0.474 es = 283 [109, 174] gini = sample value = 283 [109, 174] gini = sample value = 283 [109, 174] gini = sample value = 283 [109, 174]	Glucose en samples value = [5] enerate the enerate energy	graphi graphi graphi graphi ssively wer. worksh mples-i blocks max_c desire
Student Studen	port the from sk from sk lit the da a = df. a = df. beate the the data adel of ecision ispla blt.fig blt.fig blt.sho adent ta the low a ce the troat a dependence of the control of the control and a scribing any wish the contr	ision Todel we was required a learn. the late into in loc [:, 'outcome model of a using the late into it (x, y) TreeCla with the print of review: omplexity of the the the print of review: omplexity of the late into the print of the print o	will create in dispersion of the tree is built. In the Tree important is in the Tree important is in the Tree important is in the tree is built. In the Tree is in the tree is built. In the tree is built.	is a basic 'I rt Decisi rt export and label (ies': 'Age assifier max_dept) changing the assifier max_dept) changing the assifier max_dept) change the trees ovides one es the data oly stops. oreventing The node than in deta kit-learn.o py alpha' para in the incl assifier out_file e_names = names =	ionTree t_graph t_graph (y): (random h=3, ra a Gra # Adjus fontsiz the 'max en the gr e method a set to a over-fitti s are rem ail is beyo rg/stable ameter c usion of (random e 'diab e x.col g'biabe fontsiz simple b ed in the d'#Step Sifier Tree mo Random data-set	classif viz _state= _ndom_st phic t the f e=12, f and the selection of the selection o	ang the skle ier 0, max_d ate=0) igure si eature_n 3' to som ay too larg renting over degree, che camples/tr he amount alpha' par 0, max_d eature_n 10, max_d camples/tr he amount alpha' par 11, alpha' par 12, alpha' par 13, alpha' par 14, alpha' par 15, alue = [104, 71] 16, alpha' par 17, alpha' par 18, alpha' par 19, alpha' par 20, alpha' par 21, alpha' par 22, alpha' par 23, alpha' par 24, alpha' par 25, alpha' par 26, alpha' par 27, alpha' par 28, alpha' par 29, alpha' par 20, alpha' par 20, alpha' par 21, alpha' par 22, alpha' par 23, alpha' par 24, alpha' par 25, alpha' par 26, alpha' par 26, alpha' par 27, alpha' par 28, alpha' par 29, alpha' par 20, alpha' par 20, alpha' par 21, alpha' par 22, alpha' par 23, alpha' par 24, alpha' par 25, alpha' par 26, alpha' par 27, alpha' par 28, alpha' par 29, alpha' par 20, alpha' pa	depth = legis = 12 legis = 15 legis = 15 legis = 15 legis = 15 legis = 16 legis = 16 legis = 17 legis = 1	meeded and foolum gini = 0.255 3868 gin Decision gin Decision this means the most effects and the most effects	t may take that nodes of informary allexity_prure of the code are considered as a considered as a considered as a collection of a collection o	BMI samply part and samply part of the sample sampl	gini = sample value =	Glucose con gini = 0 samples value = [5] enerate the enerate ener	graphi m grow gini = 208 3, 150] gini = 308 3, 150] graphi m grow en the fi ssively wer. worksh mples- blocks t max_c desire 402 8, 150]
Student Studen	port the from sk from sk lit the da a = df. a = df. beate the the data from sk lit the data a = df. a = df. beate the the data from sk lit the data a = df. beate the from sk lit the data a = df. beate the from sk lit the data a = df. beate the from sk lit the data a = df. beate the from sk lit the data a = df. beate the from sk lit the data a = df. beate the from sk lit the data a = df. beate the from sk lit the data a = df. beate the from sk lit the data a = df. beate the from sk lit the data a = df. beate the from sk lit the data a = df. beate the from sk lit the data a = df. beate the from sk lit the data a = df. beate the from sk lit the data a = df. beate the from sk lit the data a = df. beate the from sk lit the data a = df. from sk lit	ision Todel we was required a learn. the learn learn le	will create in dispersion of the tree is built. In the Tree important is in the Tree important is in the Tree important is in the tree is built. In the Tree is in the tree is built. In the tree is built.	is a basic 'I It Decision The Decision The Lector The	ionTree t_graph t_graph (random h=3, ra a Gra # Adjus fontsiz the 'max en the gr e method a set to a over-fitti s are rem ail is beyo rg/stable ameter c usion of (random e 'diab are as to a over-fitti s are rem ail is beyo rg/stable ameter c usion of (random e 'diab are fontsiz simple b ed in the d'"Adjus fontsiz er Per Tree mo Random data-set er Per Tree mo Random	classif viz phic state= ndom_st phic the fee=12, f and samples = 21, and samples = 31, and see a	ang the skles ier o, max_d o, max_d figure si eature_n sigure si eature_n o, max_d formula sidue = [104, 71] allow and sidue = [104, 71] o, max_d ee.dot', or diabe false, igure si eature_n figure si eature_n	depth = legis = 12 legis = 15 legis = 15 legis = 15 legis = 15 legis = 16 legis = 16 legis = 17 legis = 1	meeded and foolum gini = 0.255 samples = 40 values. splay. Also, i gin Decision the most eff this means the control of the most eff this means the cost component of the cost cost component of the cost cost cost cost cost cost cost cost	t may take that nodes of informary allexity_prure of the code are considered as a considered as a considered as a collection of a collection o	BMI samply part and samply part of the sample sampl	gini = sample value =	Glucose con gini = 0 samples value = [5] enerate the enerate ener	graphi m grow gini = 208 3, 150] gini = 308 3, 150] graphi m grow en the fi ssively wer. worksh mples- blocks t max_c desire 402 8, 150]
Students of the students of th	port the from sk from sk lit the da a = df. a = df. beate the from sk lit the da a = df. beate the from sk lit the da a = df. beate the from sk lit the da a = df. beate the from sk lit the da a = df. beate the from sk lit the da a = df. beate the from sk lit the da a = df. beate the from sk lit the da a = df. beate the from sk lit the da a = df. beate the from sk lit the da a = df. beate the from sk lit the da a = df. beate the from sk lit the da a = df. from sk	ision Todel we were required the arm to the	will create in the libraries: Tree importance importan	Age <= 28.5 gini = 0.313 samples = 34.9 Changing to large the data oly stops. Or expending the include the inclu	ionTree t_graph t_graph y): e'] (random h=3, ra a Gra # Adjus fontsiz the 'max en the gr e method a set to a over-fitti s are rem ail is beyo rg/stable ameter c usion of (random e 'diab a set to a over-fitti s are rem ail is beyo rg/stable ameter c usion of (random e 'diab a fontsiz fontsiz the Who a set to a simple b ed in the d' # Adjus fontsiz the who est, y a simple b ed in the d' # Adjus fontsiz the who est the who	Classifie	and the skie of the skie of the amount alpha' par of the shich causes from the samples of the sa	depth = lepth = lep	meeded and foolum gini = 0.255 samples = 40 values. splay. Also, i gin Decision the most eff this means the control of the most eff this means the cost component of the cost cost component of the cost cost cost cost cost cost cost cost	t may take an Trees. It fective decorates and the codular and	BMI samply part sample	gini = sample value =	Glucose segini = 0 samples value = [5] enerate the me tree from the are succe making poor, after the value that are value that are value that are value that are value = [5] enerate the value = [5]	graphi m grow gini = 3208 3, 150] graphi m sively wer. worksh mples- blocks max_c desire desire assed on Tree.
Students of the state of the st	port the strom sk str	ision Todel we were required a learn. to the arm to it a into it a learn. to the arm to it a into it a learn. to the arm to it a learn. to the arm to it a learn. to the arm to it a learn to the arm to review: of a learn to it	will create in dibraries: Tree importance i	changing to destrict exports and label (control of the control of	ionTree t_graph iy: (random th=3, ra a Gra # Adjus fontsiz the 'max en the gr en the gr en the gr all is beyon rg/stable as are rem all is beyon rg/stable as are rem all is beyon rg/stable as are rem all is beyon filled # Adjus fontsiz the who ex col ['Diabe p ropp filled # Adjus fontsiz the who est, y_ 3\lib\s d; Func ds: Con the who est, y_ 3\lib\s d; Func ds: Con the who est, y_ 3\lib\s d; Func ds: Con the who est, y_ 3\lib\s ds: Con the who est, y_ 4\lib\s ds: Con the who est, y_ 4\lib the who est, y_ 4\l	Classification of the second o	ate = 0) ate = 0) ate = 0) ate = 0) ate = 0, ate = 0) ate = 0, ate =	depth = lepth = lep	gini = 0.255 samples = 40 value = [34, 6] valu	t may take an Trees. It fective decoration of the cod and a collection of the cod and	BMII samply part sample samp	ime to ge ime to ge revents the ach point es) on tree decision red in this, #sphx-gli s copied the larger the larger che font	Glucose giniples samples value = [5] enerate the enerate the enerate the enerate the enerate the from code r-auto-exa from code r value than enerate the samples value = [5] capalpha'. es, each base icapalpha'. es, each base icapalpha'.	graphi m grow graphi ssively wer. worksh mples- blocks max_c and and and and and and and and and an
Students of the state of the st	port the strom sk from	ision Todel we were required a required a required a required a rearn. to the control of the con	will create is dibraries: ree importance im	changing to destrict exports and label (control of the control of	ionTree t_graph iy: (random th=3, ra a Gra # Adjus fontsiz the 'max en the gr en the gr en the gr all is beyon rg/stable as are rem all is beyon rg/stable as are rem all is beyon rg/stable as are rem all is beyon filled # Adjus fontsiz the who ex col ['Diabe p ropp filled # Adjus fontsiz the who est, y_ 3\lib\s d; Func ds: Con the who est, y_ 3\lib\s d; Func ds: Con the who est, y_ 3\lib\s d; Func ds: Con the who est, y_ 3\lib\s ds: Con the who est, y_ 4\lib\s ds: Con the who est, y_ 4\lib the who est, y_ 4\l	Classification of the second o	ate = 0) ate = 0) ate = 0) ate = 0) ate = 0, ate = 0) ate = 0, ate =	depth = legis = 12 legis = 12 legis = 15 legis = 15 legis = 15 legis = 16 legis = 1	meeded and column and compares and column and compares and column and compares and column and	t may take an Trees. It fective decoration of the cod and a collection of the cod and	BMII samply part sample samp	ime to ge ime to ge revents the ach point es) on tree decision red in this, #sphx-gli s copied the larger the larger che font	Glucose giniples samples value = [5] enerate the enerate the enerate the enerate the enerate the from code r-auto-exa from code r value than enerate the samples value = [5] capalpha'. es, each base icapalpha'. es, each base icapalpha'.	graphi m grow graphi ssively wer. worksh mples- blocks max_c and and and and and and and and and an
St. Sp. St. St. St. St. St. St. St. St. St. St	port the strom sk from	ision Todel we were required a control in the contr	will create in the distribution of the tree is not established by the difference on Tree Classing the basis best of the tree is not established by the difference on Tree Classing the basis best of the tree is not established by the difference on Tree Classing the basis best of the tree is not established by the difference on Tree Classing the basis best of the tree is not established by the difference on Tree Classing the basis best of the tree is not established by the difference on Tree Classing the tree is not established by the difference on Tree Classing the tree is not established by the difference on Tree Classing the tree is not established by the difference on Tree Classing the tree is not established by the tree is not estab	assifier and label (ies': 'Age assifier max_deptl ee as assifier max_deptl ee as assifier max_deptl ee as assifier max_deptl ee as colored assifier assifier assifier assifier assifier assifier colored assifier out_file enames = asi assifier out_file	ionTree t graph iy: graph y: (random h=3, ra a Gra # Adjus fontsiz en the graph the 'max en the graph a walue = [39, 0] the max en the graph a meter of the sare rem all is beyourg/stable and over-fitting sare rem all is beyourg/stable sare re	Classification phic classified application in a control of the con	agini = 0.482 ier 0, max_d 0, max_d ate=0) agini = 0.482 agi	depth = lepth = lep	reeded adf.colum anipoles to selection anipoles to becision anipoles to	t may take an Trees. It fective decoration of the cod and a collection of the cod and	BMII samply part sample samp	ime to ge ime to ge revents the ach point es) on tree decision red in this, #sphx-gli s copied the larger the larger che font	Glucose giniples samples value = [5] enerate the enerate the enerate the enerate the enerate the from code r-auto-exa from code r value than enerate the samples value = [5] capalpha'. es, each base icapalpha'. es, each base icapalpha'.	graphi m grow graphi ssively wer. worksh mples-i blocks max_c and and arree. desire
Store	port the from sk from	ision Todel we were required a learn. the tata into in th	will create in the distribution of the code bloomers and the code bloomers are in the code bloomers. The code bloomers are in the code bloomers. The code bloomers are in the code bloomers. The code bloomers are in the code bloomers. The code bloomers are in the code bloomers. The code bloomers are in the code bloomers. The code bloomers are in the code bloomers. The code bloomers are in the co	assifier Age = 28.5 and label (ies': 'Age assifier max_dept dee as assifier max_dept dee as define formal assifier out_file enames = out_file enames =	ionTree t_graph ionTree the fontsiz ionTree the max io	Classification of the controls the controls the controls the control of the contr	agini = 0.482 ier 0, max_d 0, max_d ate=0) igure si eature_n igure si eature_n igure si cope of the samples/tr tramples/tr tra	depth = locose <= 12 games == 13 games == 1500, 2 games == 1500, 2 locose <= 98 games == 17 locose <= 12 locose <=	similar of the most efficient value of the most efficient value of the most efficient value of the most efficient of the most effici	t may take an Trees. It fective decoration of the cod and a collection of the cod and	BMII samply part sample samp	ime to ge ime to ge revents the ach point es) on tree decision red in this, #sphx-gli s copied the larger the larger che font	Glucose giniples samples value = [5] enerate the enerate the enerate the enerate the enerate the from code r-auto-exa from code r value than enerate the samples value = [5] capalpha'. es, each base icapalpha'. es, each base icapalpha'.	graphi graphi graphi graphi ssively wer. workshemples- blocks t max_c adesire desire simply simply structe remove Blues Funct e remove Blues Funct e remove Blues Funct e remove Blues Funct e remove Blues
State	port the from sk from sk from sk lit the data state the from sk lit f	ision I odel we we required the arm. the train to interest the promote of the pr	will create in dibraries: ree importance im	is a basic 'I' Int Decision Int export and label (' I'es': 'Age assifier assifier assifier assifier assifier changing the condens of the data by stops. are trees ovides one es the data oby stops. are trees ovides one es the data oby stops. assifier out file enames = condens of the condens of	ionTree t graph y): (random h=3, ra a Gra # Adjus fontsiz fontsiz a method a set to a over-fitti s are rem all is beyo rg/stable ameter of usion of (random e 'diab a y y fontsiz fontsiz the max a fontsiz a method a set to a over-fitti s are rem all is beyo rg/stable a method a set to a over-fitti s are rem all is beyo rg/stable a method a set to a over-fitti s are rem all is beyo rg/stable a method a set to a over-fitti s are rem all is beyo rg/stable a meter of the max a hadjus fontsiz fontsiz a hadjus fontsiz a hadjus fontsiz a hadjus fontsiz a hadjus fontsiz fontsiz a hadjus fontsiz fontsiz a hadjus fontsiz f	classification classification phic the feels, fe	agini = 0.482 o, max_d o, max_d o, max_d o, max_d o, ate=0) igure si eature_n girl = 0.482 samples = 175 alue = [104, 71 3' to some ay too larg renting over degree, che chich causes cope of the camples/tr he amount alpha' par o, max_d ee.dot', oT diabe False, igure si eature_n cian plit(x, y nce renting and plit(x, y	depth = lose <= 12 games = lose <= 12 los	similar of the most efficient value of the most efficient value of the most efficient value of the most efficient of the most effici	se <= 145.5 in elections of informatic fective deconstructions of the code of	BMI samply particles and samply value and sample with the sample value and	gini en and sample value en and since for the larger en and since for the content of the content of the base en and since for the larger en and since for the base en and sinc	Glucose of gint of samples value = [5] 10.479 10.5 amples val	graphic sively wer. workshomples-function and a Tree. 402 and a Tree. 402 and a Tree.
State of the state	port the grow shows a serious of the shows a construction	ision I odel we we required the arm of the	will create in dibraries: Tree importance i	Age = 28.5 and label (and label (and label (assifier and label (assifier assifier assifier assifier assifier assifier assifier assifier and label (assifier assifier and label (assifier and label (assifier and label (assifier	ionTree trandom	Classification in the second of the second o	ier o, max_d o, max_d o, max_d o, max_d cate=0) igure si eature_n grenting over degree, che comples/tr he amount alpha' par o, max_d eature_n o, max_d eature_n figure si eature_n o, max_d eature_n figure si eature_n figure si eature_n sian Matri splay_la chages\sk	depth = dep	needed adf.colum and addition addition and addition addition addition and addition addition addition and addition addition addition addition additio	size < 145.5 size < 145.5 size = 145.5 size = 75 size 51, 24 gini samp value t may take t may take t may take t fective declar find the cod Trees. It fective declar find the cod TreeClassi size = 0.499 size = 0.499 size = 0.499 size = 0.59, 63] size = 0.499 si	BMI simply provided in simply provided interest in simply provided interest in simply in sample with a simply sample value in	ime to ge ime to ge revents the each point as on tree decision red in this, #sphx-gli s copied the larger the font che f	Clucose congini = 0 sample 50 sample 51 sample 51 sample 51 sample 52 sample 54 sep = 116 sep	graphi m grow graphi m grow en the tenses in the tense in the tenses i
State of the state	port the grow shows a serious of the shows a construction	ision I odel we we required the serior into into into into into into into into	will create in distributions in the importance importan	Age = 28.5 and label (and label (and label (assifier and label (assifier assifier assifier assifier assifier assifier assifier assifier and label (assifier assifier and label (assifier and label (assifier and label (assifier	ionTree trandom	Classification in the second of the second o	ier o, max_d o, max_d o, max_d o, max_d cate=0) igure si eature_n grenting over degree, che comples/tr he amount alpha' par o, max_d eature_n o, max_d eature_n figure si eature_n o, max_d eature_n figure si eature_n figure si eature_n sian Matri splay_la chages\sk	depth = lepth = lepth = lose <= 12 gin = 0.454 mples = 76 et ree. T sthe sn nis cours et ree. T sthe sn nis cours et ree/plot t of pru rameter depth = lepth =	meeded and column and column	size < 145.5 size < 145.5 size = 145.5 size = 75 size 51, 24 gini samp value t may take t may take t may take t fective declar find the cod Trees. It fective declar find the cod TreeClassi size = 0.499 size = 0.499 size = 0.499 size = 0.59, 63] size = 0.499 si	BMI simply provided in simply provided interest in simply provided interest in simply in sample with a simply sample value in	ime to ge ime to ge revents the each point as on tree decision red in this, #sphx-gli s copied the larger the font che f	Clucose congini = 0 sample 50 sample 51 sample 51 sample 51 sample 52 sample 54 sep = 116 sep	graphi m grow graphi m grow en the tenses in the tense in the tenses i
State of the state	port the growth of the series of the same is a series	ision I odel we we required the serior to it it is into it is int	will create in distributions in the importance importan	Age = 28.5 and label (and label (and label (assifier and label (assifier assifier assifier assifier assifier assifier assifier assifier and label (assifier assifier and label (assifier and label (assifier and label (assifier	ionTree trandom	classification in the second of the second o	ier o, max_d o, max_d o, max_d o, max_d cate=0) igure si eature_n grenting over degree, che comples/tr he amount alpha' par o, max_d eature_n o, max_d eature_n figure si eature_n o, max_d eature_n figure si eature_n figure si eature_n sian Matri splay_la chages\sk	depth = dep	per on one s agini = 3) per on one s agini = 1,4,6 agini = 1,4	size < 145.5 size < 145.5 size = 145.5 size = 75 size 51, 24 gini samp value t may take t may take t may take t fective declar find the cod Trees. It fective declar find the cod TreeClassi size = 0.499 size = 0.499 size = 0.499 size = 0.59, 63] size = 0.499 si	BMI simply provided in simply provided interest in simply provided interest in simply in sample with a simply sample value in	ime to ge ime to ge revents the each point as on tree decision red in this, #sphx-gli s copied the larger the font che f	Clucose congini = 0 sample 50 sample 51 sample 51 sample 51 sample 52 sample 54 sep = 116 sep	graphic sively wer. workshowen the transcription of the transcription o
St. No. 2. The beginning of the st. St. No. 2. The beginning of the st. St. No. 2. The beginning of the st. St. No. 3. We see that the state of the st. St. No. 3. We see that the state of the st. St. No. 3. The st. St. St. No. 3. The st. S	port the carry shall be carry shall	ision I odel we ware a control of the control of t	will create in the libraries: It is a imposite	and label (control of the control of	ionTree t_graph ty: t_graph y): e'] (random h=3, ra # Adjus fontsiz and is beyon and the graph the max en the gr and is beyon and the graph the max en the gr and the graph the	Classification of the state of	gini = 0.482 o, max_d o, max_d o, max_d cate=0) digure si eature_n gini = 0.482 samples = 17.5 aligure si cate amount alpha' par o, max_d eature_n digure si eature_n sigure si eature_n distrixDistr	depth = dep	meeded and footbod	se <= 145.5 iii = 0.435 iii = 0.435 iii = 0.435 iii = 0.436 ii = 0.436 iii = 0	BMI simply value = 1.5 simply provided interest simply provided interest simply in a simply value = 1.0 simply samply samply samply value = 1.0 simply samply samply samply value = 1.0 simply samply sampl	gini = 29.95 = 0.474 = 0.474 = 0.474 gini = 1.09 revents the each point est on tree decision red in this, #sphx-gli stream to get the font the font stream to get the font the font stream to get the larger the font stream to get the larger the font stream to get the font stream to get the larger the font stream to get the larger the font stream to get the font stream to	Glucose congini possible substitution of the street of the	graphi graphi graphi graphi sively wen the finance sively wer. worksh mples- blocks max_c desire 402 208 3, 150] Blues Funct e remoda ay.fro
St. No. 2. The general strain of the strain	port the crom should be come should be considered as a conside	ision I odel we ware a control of the control of t	will create in dibraries: If it is a simport in the serior in the serio	is a basic 'I' ret Decision ret export and label (' and label (') and label	ionTree the graph y): et graph y): et graph y): et a Gra a G	classifie	agin = 0.482 ier O, max d O, max d O, max d Cate = 0) Gu Salure si Cate = 0, max d	depth = dep	meeded and f. column and f. co	se <= 145.5 in = 0.435 in = 0.435 in = 151, 24] for the cod of information of the cod of information of the cod of inference classifier and in the cod of information of of inf	BMI simply provided in simply s	gini = 29.95 = 0.474 es = 283 [109, 174] sime to ge revents the each point es) on tree decision red in this, #sphx-gli street font che	Clucose con samples value = [5] 10.479 10.4	graphi graphi graphi graphi samp value graphi surve sively worksh mples- blocks max_c desire age simply samp samp value sively worksh mples- blocks max_c desire age simply
St. No. 2. The beginner of the st. St. No. 2. The b	port the promote	sision I odel we we required the required t	will create in the importance of the importance	is a basic 'I rt Decisi rt dexpersion rt dexpersion and label (ides': 'Age assifier deas in assifier changing the trees ovides one es the data oly stops. reventing The node the incleance of the incleance assifier out_file e_names = nd = True, in the incleance assifier out_file e_names = nd = True, in the incleance in the incleance in the incleance assifier out_file e_names = nd = True, in the incleance i	ionTree tonTree t_graph y): et_graph y): et_graph y): et_graph a Gra a Gra a Gra a Adjus fontsiz a set to a over-fitti s are rem iii is beyout rest to a o	BMI < 26.33 Signification of the service of the se	and the skie of the skie of the samples of the samp	depth = lepth = loss < 12 large if large if large if it in cosing of the in e to dis erifitin cosing of the in erifitin erifi	and a signature of the most of	se = 145.5 in = 0.435 in = 0.135 in = 0.135 in = 0.135 in = 0.135 in = 0.435	BMI samply property samply property samply property samply property sample samp	gining sample value and so on tree decision reduction reduction reduction and so on the format so on the for	Glucose of samples value = 15 20.479 as = 116 an etree from the same succe making poor after the same succe making poor after the same contains and the same same as a same as	graphi agraphi agra
3. We start the start of the st	port the From sk Fr	sision Todal we were required the required t	will create in the ree importance imports (x's) and the ree importance import	is a basic 'I ret Decision and label (ies': 'Age assifier max_dept! ree as assifier changing the assifier c	ionTree t_graph ionTree t_graph iv): e'] ionTree t_graph iv): e'] ionTree t_graph iv): e'] ionTree ionTr	BMI < 26.34 State= Indom st Iphic State= Indom st Iphic Ithe ferman Indom st Iphic Ithe ferman Indom st	and on Forest Control of the base of the b	depth = dep	and a signature of the most of	the may take the m	BMI samply position at a long time state and	agini = 29.95 e0.4748 e0.4748 e1.09.174] agini = sample s	Glucose companies of single of singl	agraphi agr
3. We start that the start of t	port the service of t	ision I odel we was required a learn. the control of the control	will create in the importance of importance in the importance in t	is a basic 'I' is a basic 'I'	ionTree therefore therefor	classif viz classi	and the skie of the skie of the base of th	depth = dep	needed adf.colum advantage adf.colum adf.colum advantage adf.colum	the state of the s	BMI simply position at the simple sample with the simple sample s	ime to ge gining sime to ge revents the each point so on tree decision red decision red decision red the larger she font che font she font	Glucase of Glucase of Samples (Samples	agraphic sively wer. workshoples- blocks max. desired agraphic sively wer. workshoples- blocks max. desired agraphic sively wer. workshoples- blocks agraphic sively agraphic siv
3. We start the start of the st	portition profition profition From sk From s	ision I ode we we required the required the remains t	will create in the importance imports (x) and importance imports (x) and importance impo	sis a basic 'I' sis a basic 'I' sis a basic 'I' ret pecisis ret pecisis ret export and label (' ies' 'Age assifier assifier assifier assifier out file enames = not the incl assifier out file enames = not true, file enames = not true	ionTree ionTree itheraph y): e' j (random h=3, ra a Gra what ioneriti sare rem al is beyou registable aset to a over-fitti sare rem al is beyou registable aset to a ioneriti sare rem aset to	Classifer Controls the copy	ang the skie an	depth = learn fittin oosing et ree. T learn sis course et od is learn sis course et of pru ameter learn sis course et of pru ameter learn sis course et of sis deep learn sis course learn sis course learn sis course learn sis deep learn si	reeded and defection and defection	the set of the cod of	BMI simply provided in the strength of the str	ine to ge revents the cach point solve the larger solve the lar	coluciose consumples value = 150 consumples v	#157.5 = #2028 #3,150] graph
3. We start the start of the st	portition profition profition From sk From s	ision I odel we was required the required t	will create in the importance of importance importanc	sis a basic 'I' sis a basic 'I' sis a basic 'I' ret pecisis ret pecisis ret export and label (' ies' 'Age assifier assifier assifier assifier out file enames = not the incl assifier out file enames = not true, file enames = not true	ionTree ionTree itheraph y): e' j (random h=3, ra a Gra what ioneriti sare rem al is beyou registable aset to a over-fitti sare rem al is beyou registable aset to a ioneriti sare rem aset to	Classifer Controls the copy	ang the skie an	depth = land series of se	peeded adf.colum and adf.colum	the set of the cod of	BMI simply provided in the strength of the str	ine to ge revents the cach point solve the larger solve the lar	coluciose consumples value = 150 consumples v	agraphic sively wer. workshowen the total street and the total street a

Then use the 'GridSearchCV' function to try each permutation of hyper-parameter until the optimum settings are discovered.

be waiting a long time!

In []: clf = GridSearchCV(estimator=rfc,

param_grid=param_grid)
best_model= clf.fit(x_train,y_train)

In []: print(best_model.score(x_test, y_test))

Finally, we can review the confusion matrix for the model with optimum settings:

WARNING This operation may take a considerable amount of time, since the model has to be built for each combination of parameter settings. On my CORE i7-7700HQ gaming laptop with a GPU it takes about 20 minutes to run! So if you have a slower machine - you may

In []: plot_confusion_matrix(best_model, x_test, y_test, display_labels=['Diabetes','Not Diabetes'], cmap=plt.cm.Blues,
 plt.show()

(c) Donox Ltd 2023