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import pandas as pd
import numpy as np
import seaborn as sns

ind_food_df = pd.read_csv('/content/Indian food eda.zip')

ind_food_df

		name	ingredients	diet	prep_time	cook_time	flav	vor_profile course	state	region	\blacksquare
?	0	Balu shahi	Maida flour, yogurt, oil, sugar veg	jetarian	45	25		sweet dessert	West Bengal	East	ıl.
	1	Boondi	Gram flour, ghee, sugar	vegetar	ian	80	30	sweet dessert	Rajasthan	We	st
	2	Gajar ka halwa	Carrots, milk, sugar, ghee, cashews, raisins	vegetar	ian	15	60	sweet dessert	Punjab	Nort	th
	3	Ghevar	Flour, ghee, kewra, milk, clarified butter, su	vegetar	ian	15	30	sweet dessert	Rajasthan	We	st
	4	Gulab jamun	$\label{eq:milk} \textbf{Milk powder, plain flour, baking powder, ghee,}$	vegetar	ian	15	40	sweet dessert	West Bengal	Ea	st
	250	Til Pitha	Glutinous rice, black sesame seeds, gur	vegetar	ian	5	30	sweet dessert	Assam	North Ea	ıst
	251	Bebinca	Coconut milk, egg yolks, clarified butter, all	vegetar	ian	20	60	sweet dessert	Goa	We	st
	252	Shufta	$Cottage\ cheese, dry\ dates, dried\ rose\ petals,$	vegetar	ian	-1	-1	sweet dessert	Jammu & Kashmir	Nort	th
	253	Mawa Bati	Milk powder, dry fruits, arrowroot powder, all	vegetar	ian	20	45	sweet dessert	Madhya Pradesh	Centra	al
	254	Pinaca	$Brown\ rice, fennel\ seeds, grated\ coconut,\ blac$	vegetar	ian	-1	-1	sweet dessert	Goa	We	st
	255 rc	ows × 9 columns									

ind_food_	df.head(20)												_
	name	ingred	ients	diet	prep_time	cook_time	flavor_p	rofile	course		state	region	
1	Balu shahi	Maida flour, yogurt, oil,	sugar vege Boondi Rajasthar	Gran	n flour, ghee,	25 sugar	vegetar		dessert 30		Bengal sweet	East desse	iii ert
	Gajar ka	Carrots, milk, sugar	r, ghee,										
2			vegetarian	15	60	sweet	dessert	Punja	ab N	orth			
	halwa	cashews,	raisins										
Flour, ghee	e, kewra, milk, clar	rified											
3			Ghevar	vege	etarian 15	30	sweet	dess	ert Ra	ajasthan	West		
butter, su													
Milk powde	er, plain flour, baki	ng											
4			Gulab jamu	nvege	etarian 15	40	sweet	dess	ert W	est Beng	al	East	
powder, gh	nee,												
5			lmarti East	Suga	ar syrup, lenti	l flourvegetari	an 10	50	SV	veet	desser	t West	Benga

255.000000 255.000000

Maida, corn flour, baking soda,

```
ind_food_df.shape<sup>6</sup>
                                            Jalebi
                                                      vinegar, curd,...
                                                                       vegetarian
                                                                                      10
                                                                                                      50
                                                                                                                          dessert Pradesh
                                                                                                                                              North
                                                                                                             sweet
Cashews, ghee, cardamom,
7
           Kaju katli vegetarian 10
                                        20
                                                   sweet
                                                             dessert
                                                                       -1
                                                                                 -1
     (255, 9)
                                                 sugar
8
           Kalakand Milk, cottage cheese, sugar
                                                   vegetarian 20
                                                                       30
                                                                                                     West Bengal
                                                                                                                          East
                                                                                  sweet
                                                                                            dessert
dfshape = ind_food_df.shape
9
           Kheer Milk, rice, sugar, dried fruits
                                                   vegetarian 10
                                                                       40
                                                                                            dessert
                                                                                                                -1
                                                                                  sweet
type(dfshape)
10
           Laddu
                    Gram flour, ghee, sugar
                                                   vegetarian 10
                                                                       40
                                                                                                                -1
                                                                                  sweet
                                                                                            dessert
tuple
11
           Lassi
                    Yogurt, milk, nuts, sugar
                                                   vegetarian 5
                                                                       5
                                                                                  sweet
                                                                                            dessert
                                                                                                     Punjab
                                                                                                                North
ind food df.columns
                              Refined flour, besan, ghee,
12
           Nankhataivegetarian 20
                                        30
                                                   sweet
                                                             dessert
powderedsugar, yo...
                              Firm white pumpkin, sugar,
                                                                                                                            Uttar
    Index(['name', 'ingredients', 'diet', 'prep_time', 'cook_time',13Petha vegetarian
                                                                                                      10
                                                                                                              30
                                                                                                                                   sweet
                                                                                                                                               dessert
                                     North
       'flavor_profile', 'course', 'state', 'region'], kitchen lime, alum ...
                                                                                                                         Pradesh
      dtype='object')
      14
                 Phimi
                                       Rice, sugar, nuts vegetarian
                                                                           30
                                                                                      20
                                                                                                                          Odisha
                                                                                                                                     East
                                                                                                     sweet dessert
                          Condensed milk, sugar, spices
                                                                                                                            Uttar
ind_food_df.isna15Rabri().sum()
                                                  nuts vegetarian
                                                                           10
                                                                                      45
                                                                                                     sweet dessert
                                                                                                                                    North
Pradesh
                         0
     name
     ingredients
                         0
                         0
     diet
     prep_time
     cook_time
                         0
     flavor_profile
                         0
     course
     state
                         0
     region
                         1
     dtype: int64
ind food df.describe()
              prep_time cook_time count
```

```
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                                                                                                     Indian food EDA - Colaboratory
         mean
                   31.105882 34.529412
                   72.554409 48.265650
           std
          min
                   -1.000000 -1.000000
   ind_food_df.info25%
                   10.000000 20.000000
      <bound method DataFrame.info of</pre>
                                                      name
                                                                                                  ingredients \50%10.00000030.000000
        0
                     Balu shahi
                                                    Maida flour, yogurt, oil, sugar
        1
                      Boondi
                                                        Gram flour, ghee, sugar 75% 20.00000040.000000
        2
                     Gajar ka halwa
                                           Carrots, milk, sugar, ghee, cashews, raisins 3
                                                                                                       Ghevar Flour, ghee, kewra, milk,
                                                            500.000000
                                                                               720.000000 4
                      clarified butter, su...
                                                                                                 Gulab jamun Milk powder, plain flour, baking
                     powder, ghee,...
                                       Glutinous rice, black sesame seeds, gur 251
        250
                  Til Pitha
        Bebinca Coconut milk, egg yolks, clarified butter, all...
        252
                      Shufta Cottage cheese, dry dates, dried rose petals, ...
        253
                     Mawa Bati Milk powder, dry fruits, arrowroot powder, all... 254
                                                                                                  Pinaca Brown
                     rice, fennel seeds, grated coconut, blac...
                   diet prep time cook time flavor profile
                                                               course \
             vegetarian
                                 45
                                            25
                                                        sweet
                                                               dessert
        1
             vegetarian
                                80
                                            30
                                                        sweet
                                                               dessert
             vegetarian
                                15
                                            60
                                                        sweet
                                                               dessert
             vegetarian
        3
                                15
                                            30
                                                        sweet
                                                               dessert
        4
             vegetarian
                                15
                                                               dessert
                                                        sweet
                                 5
             vegetarian
                                                        sweet
                                                               dessert
             vegetarian
                                20
                                            60
                                                               dessert
                                                        sweet
             vegetarian
                                 -1
                                            -1
        252
                                                        sweet
                                                               dessert
                                20
             vegetarian
                                            45
                                                                        254 vegetarian
                                                                                                            -1
                                                                                                                        sweet dessert
                                                        sweet
                                                              dessert
                       state
                                  region 0
        West Bengal
                            East
        1
                      Rajasthan
                                       West
        2
                      Punjab
                                    North
        3
                      Rajasthan
                                       West
        4
                       West Bengal
                                          East ..
        250
                         Assam North East
        251
                         Goa
                                    West
        252
                         Jammu & Kashmir
                                                North
        253
                         Madhya Pradesh
                                             Central
        254
                         Goa
                                    West
        [255 rows x 9 columns]>
   ind food df.head(50)
                                                                                                                                     diet prep_time cook_time flavor_profile
                    name
                                      ingredients
                                                                                                     course
                                                                                                                   state
                                                                                                                           region
                               Maida flour, yogurt, oil, vegetarian
                                                                                                                                     d.
          0
                Balu shahi
                                                                                25
                                                                                                     dessert West Bengal
                                                                                                                              East
                                                                     45
                                                                                             sweet
   sugar
   1
                                              Boondi
                                                            Gram flour, ghee, sugar
                                                                                        vegetarian 80
                                                                                                           30
                                                                                                                     sweet
                                                                                                                              dessert
                                                   Rajasthan West
                            Carrots, milk, sugar, ghee,
                   Gajar ka
   2
                                              vegetarian
                                                            15
                                                                      60
                                                                                                Punjab
                                                                                                           North
                                                                               sweet
                                                                                        dessert
                    halwa
                                     cashews, raisins
```

 $https://colab.research.google.com/drive/1qTmxeZtC2VnlOOCsKmykVGi_dMj3Oevb\#scrollTo=8lnWDXTbCg0M\&printMode=true$

Flour, ghee, kewra, milk,

-										
— з	Ghevar	vegetarian	15	30	sweet	dessert	Rajasthan	West		
clarified butter, su										
Milk powder, plain flour,										
4	Gulab jamun	vegetarian	15	40	sweet	dessert	West Beng	jal	East	
baking powder, ghee,										
5	ImartiSugar syru	ıp, lentil flou	ırvegetarian	10	50	sweet	dessert	West Beng	jal	East
Maida, corn flour, baking										
6	Jalebi	vegetariar	10	50	sweet	dessert	Uttar Prade	esh	North	
soda, vinegar, curd,										
Cashews, ghee, cardamom,										
7	Kaju katli	vegetarian	10	20	sweet	dessert	-1	-1		
sugar										
8	Kalakand Bengal	Milk, cottag East	ge cheese, s	sugar	vegetarian	20	30	sweet	dessert	West
9	Kheer -1	Milk, rice, s	sugar, dried	fruits	vegetarian	10	40	sweet	dessert	-1
10	Laddu -1	Gram flour	r, ghee, sug	ar	vegetarian	10	40	sweet	dessert	-1
11	Lassi Yogurt, mi	lk, nuts, sug	ar	vegetarian	5	5	sweet	dessert	Punjab	North
Refined flour, besan, ghee,										
12	Nankhatai	vegetarian	20	30	sweet	dessert	-1	-1		
powdered sugar, yo										
Firm white pumpkin, sugar,										
13	Petha	vegetarian	10	30	sweet	dessert	Uttar Prade	esh	North	
kitchen lime, alum										
14	PhirniRice, suga	ır, nuts	vegetarian	30	20	sweet	dessert	Odisha	East	
Condensed milk, sugar,										
15	Rabrivegetariar	10	45	sweet	dessert	Uttar Prad	esh	North		
spices, nuts										
16	Sheera Maharash		ghee, nuts, West	milk	vegetarian	10	25	sweet	dessert	
17	Singori Uttarakhai		onut, molu le North	eaf	vegetarian	10	20	sweet	dessert	
18	Sohan halwa Pradesh	Corn flour,	ghee, dry fi	ruits	vegetarian	10	60	sweet	dessert	Uttar

Gram flour	r, ghee, sugar,									,	
19		Sohan	papdi	vegetarian -1	60	sweet	dessert	Maharas	shtra	West	
milk, carda	amom										
20		Chher	na jalebi	Chhena, sugar, ghee	vegetaria	n 10	50	sweet	dessert	Odisha	East
21		Chher	na kheeri	Chhena, sugar, milk	vegetaria	n -1	60	sweet	dessert	Odisha	East
22		Chher	na poda	Sugar, chenna chees	evegetaria	n 10	45	sweet	dessert	Odisha	East
Flour, crea	ım, sugar, saffron,										
23		Cham	cham	vegetarian 40	60	sweet	dessert	West Be	ngal	East	
lemon juic	e, coc										
Chenna, c	ondensed milk,										
24		Kheer	sagar	vegetarian 25	60	sweet	dessert	Odisha	East		
sugar, saff	fron, cardamom										
25		Ledike E	eni East	Chhena, sugar, ghee	vegetaria	n 45	45	sweet	dessert	West Ber	ıgal
		Flour fried milk power								North	
26	Lyangcha	Flour, fried milk power, sugar syrup	vegetaria	an 20	30	sw	reet des	sert	Assam	North East	
27	Malapua	Yoghurt, refined flour, ghee, fennel seeds	vegetaria	an 10	120	sw	eet des	sert	Bihar	North	
28	Mihidana	Besan flour, sugar, ghee	vegetaria	an 15	30	SW	reet des	sert Wes	st Bengal	East	
29	Misti doi	Milk, jaggery	vegetaria	an 480	30	SW	reet des	sert Wes	st Bengal	East	
30	Pantua	Chhena, sugar, ghee, flour	vegetaria	an 45	45	SW	eet des	sert Wes	st Bengal	East	
31	Pithe	Rice flour, wheat flour	vegetaria	an 15	35	SW	reet des	sert	Assam	North East	
32	Rasabali	Chenna, sweetened milk	vegetaria	an 15	30	SW	reet des	sert	Odisha	East	
33	Ras malai	Chhena, reduced milk, pistachio	vegetaria	an 180	60	sw	eet des	sert Wes	st Bengal	East	
34	Rasgulla	Chhena, sugar, cardamom	vegetaria	an 10	90	SW	reet des	sert Wes	st Bengal	East	
35	Sandesh	Milk, sugar, saffron, cardamom	vegetaria	an 30	20	sw	reet des	sert Wes	st Bengal	East	
36	Adhirasam	Rice flour, jaggery, ghee, vegetable oil, elachi	vegetaria	an 10	50	sw	reet des	sert Wes	st Bengal	East	
ind_food jaggery,gh		Ariselu]==-1 Rice flour,	vegetaria	an 15	75	sw	reet des		Andhra Pradesh	South	
038	FalseBand	Besan, jaggery, cardamom dar laddu powder, ghee,	vegetaria	an 5	35	sw	eet des		Andhra Pradesh	South	

cashews...

¹ False

² False

3 False

4 False ... 250 False

251 False

252 False

253 False

254 False

Name: region, Length: 255, dtype: bool

ind_food_df[ind_food_df['region']=='-1']

	na	me				ingredients	diet	prep_tin	ne cook_t	time fla	avor_pr	ofile	cours	e st	ate r	egion
7	Kaju ka	atli		Cashew	s, ghee, ca	rdamom, sugar	vegetariar	n 1	10	20	:	sweet	desse	ert	-1	-1
				9	Kheer	Milk, rice, sug	gar, dried fru	its ve	getarian 1	0	40	swee	t des	sert	-1	
				10	Laddu	Gram flour, g	hee, sugar	ve	getarian 1	0	40	swee	t des	sert	-1	
12	Nankh	hatai	Refined flo	our, besan, g	ghee, powo	dered sugar, yo.	vegetaria	ın	20	30		sweet	des	sert	-1	
94						omato, green c	vegetaria	ın	40	20		spicy	main cou	rse	-1	
_			- 0	-		n'] = 'West' xed nuts, saffror	ı,vegetaria	an	45	25		sweet	des	sert	-1	
98	8 Lauki ki s	ubji	Bottle gou	urd, coconu	t oil, garam	masala, ginge.	vegetaria	ın	10	20		spicy	main cou	rse	-1	
109	Pani pu	uri n ame Ka	ala chana, r	mashed pot	ato, boond	i, sev, lemon in ;	gredientsve	egetarian di	et prep_t	ime cook	<_time15	flavor_	_profile2		spicy	cours/
stat	e-1region	-1														
						A to a set of the Nation	do flour voor	urt oil ou go	rvegetariar	nvenetaria	an	45		5	25	
	1 Balu shah			v, lemon jui		ed tomatoesiviaid		iri, Oii, Suga	rogotana	rvegetana		.0				
	rdessertWe	st Benga	Isnack	•	-1		East-1		Ü	Ü						
spicy	rdessertWe	st Benga aBoondiF	Isnack Potatoes, gr	reen peas,	-1	a tomatoesiviaid	East-1		Ü	Ü		80		30		
spicy 1111 30	dessertWe 7 Samos sweetspi	st Benga aBoondiF cydesser	Isnack Potatoes, gr t	reen peas, q snackR	-1 garam mas ajasthan-1	sala, ginger, dou ws, raisinsChan	East-1 ghGram flou West-1 a dal, urad d	r, ghee, suç	garvegetari	anvegetar s, sugarve	rian getarian	80	n			
111 ¹ 30 4 2 G	rdessertWe 7 Samosi sweetspi ajar ka halv 60 3Brown Ric	st Benga aBoondiF cydesser vaUpma0 ceGhevar	enack Potatoes, gr t Carrots, mill	reen peas, snackR k, sugar, gh	garam mas ajasthan-1 nee, cashev 20 Ik, clarified	sala, ginger, dou ws, raisinsChan	East-1 ghGram flou West-1 a dal, urad d	r, ghee, sug al, ginger, c sweetspicyd	garvegetaria urry leaves dessertsnades oilvegetari	anvegetar s, sugarve ckPunjab-	rian getarian 1	80 vegetariar North-1		30		3
111: 30 642 G 231: swee	7 Samosi sweetspi ajar ka halv 60 3Brown Ric et desse	st Benga aBoondiF cydesser waUpma0 :eGhevari rt-1	Potatoes, gr t Carrots, mill	reen peas, g snackR k, sugar, gh e, kewra, mi ma	garam mas ajasthan-1 nee, cashev 20 Ik, clarified in courseR	ws, raisinsChando butter, suBrodajasthan-1 g powder, ghee	East-1 ghGram flou West-1 a dal, urad d	r, ghee, sug al, ginger, c sweetspicyc sauce, olive West-	garvegetari urry leaves dessertsnad oilvegetari	anvegetar s, sugarve ckPunjab- ianvegeta atercress,	getarian 1 rian 19	80 vegetariar North-1 5 1:	5 egetarian	30 15 30		1
111 ⁻ 30 42 G 231 ⁻ swee	rdessertWe 7 Samosis sweetspi ajar ka halv 60 3Brown Ricet desse 4Gulab jam	st Benga aBoondiF cydesser waUpmaC reGhevar rt-1 unRed R	Potatoes, gr t Carrots, mill Flour, ghee	reen peas, g snackR k, sugar, gh e, kewra, mi ma	garam mas ajasthan-1 nee, cashen 20 Ik, clarified in courseR lour, bakin sweet	ws, raisinsChando butter, suBrodajasthan-1 g powder, ghee	East-1 ghGram flou West-1 a dal, urad d	r, ghee, sug al, ginger, c sweetspicyc sauce, olive West-	garvegetaria curry leaves dessertsnad e oilvegetari 1	anvegetar s, sugarve ckPunjab- ianvegeta atercress, urseWest	getarian 1 rian 19	80 vegetariar North-1 5 1! etarianve Eas	5 egetarian	30 15 30		1
1111 30 42 G 2313 swee 40	7 Samosi sweetspi ajar ka halv 60 3Brown Ricet desse 4Gulab jam	st Benga aBoondiF cydesser waUpmaC ceGhevar rt-1 unRed R Sugars	Potatoes, gr t Carrots, mill Flour, ghee iceMilk pow	reen peas, s snackR k, sugar, gh e, kewra, mi ma vder, plain f	garam mas ajasthan-1 nee, cashee 20 Ik, clarified in courseR llour, baking sweet	ws, raisinsChans butter, suBro ajasthan-1 g powder, ghee	East-1 ghGram flou West-1 a dal, urad d s wn rice, soyRed peppe	al, ginger, c sweetspicyc sauce, olive West- er, red onior dessert dessert	garvegetaris curry leaves dessertsnad e oilvegetari 1 n, butter, wat- 1-1main cou	anvegetar s, sugarve ckPunjab- ianvegeta atercress, urseWest	getarian 1 1 rian 1: , olivegu Bengal-1	80 vegetariar North-1 5 1! etarianve Eas	5 egetarian	30 15 30		3 1 2 orth
1111 30 42 G 2311 sweet 40 5	rdessertWe 7 Samosis sweetspi ajar ka halv 60 8Brown Ricet desse 4Gulab jam -1	aBoondiF cydesser vaUpmaC ceGhevar rt-1 unRed R Sugars Maida,	Potatoes, gr t Carrots, mill Flour, ghee iceMilk pow yrup, lentil corn flour, b	reen peas, s snackR k, sugar, gh e, kewra, mi ma vder, plain f	garam mas ajasthan-1 nee, cashev 20 Ik, clarified in courseR dour, baking sweet arian 10 a, vinegar, o	ws, raisinsChando butter, suBrodajasthan-1 g powder, ghee	East-1 ghGram flou West-1 a dal, urad d s wn rice, soyRed peppe	al, ginger, c sweetspicyc sauce, olive West- er, red onior dessert dessert	garvegetaris eurry leaves dessertsnad e oilvegetari 1 n, butter, wa t-1main cou	anvegetar s, sugarve ckPunjab- ianvegeta atercress, urseWest l	getarian 1 	80 vegetariar North-1 5 1! etarianve Eas	5 getarian st-1	30 15 30		3 1 2
1111 30 442 G 2311 sweet 40 5	rdessertWe 7 Samosis sweetspi ajar ka halv 60 3Brown Ricet desse 4Gulab jam -1 Imarti Jalebi Kaju katli	aBoondiF cydesser waUpmaC reGhevar rt-1 unRed R Sugar s Maida, Cashev	Potatoes, gr t Carrots, mill Flour, ghee iceMilk pow yrup, lentil corn flour, b	reen peas, s snackR k, sugar, gh e, kewra, mi ma vder, plain f flourvegeta baking soda ardamom, s	garam mas ajasthan-1 nee, cashen 20 Ik, clarified in courseR flour, bakin sweet urian 10 a, vinegar,	ws, raisinsChando butter, suBrodajasthan-1 g powder, ghee	East-1 ghGram flou West-1 a dal, urad d s wn rice, soyRed peppe sweet vegetariar	al, ginger, consweetspicyonsauce, oliver West-rer, red onion dessert dessert	garvegetaria curry leaves dessertsnad e oilvegetaria n, butter, wa t-1main cou West Ben	anvegetar s, sugarve ckPunjab- ianvegeta atercress, urseWest l ngal sweet	getarian 1 nian 1: , olivegr Bengal-1 East dess Wes	80 wegetariar North-1 5 1! etarianve Eas	5 getarian st-1	30 15 30		3 1 2

ind_food_df[ind_food_df['region']=='-1']

name ingredients diet prep_time cook_time flavor_profile course state region



```
pandas.core.frame.DataFrame
ind_food_df['region'].value_counts()
    West
                  87
    South
                  59
    North
                  49
    East
                  31
    North East
                  25
    Central
    Name: region, dtype: int64
import seaborn as sns
import matplotlib
import matplotlib.pyplot as plt
%matplotlib inline
sns.set_style('darkgrid')
matplotlib.rcParams['font.size'] = 14
matplotlib.rcParams['figure.figsize'] = (9, 5)
matplotlib.rcParams['figure.facecolor'] = '#00000000'
```

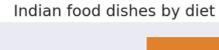
ind_food_df

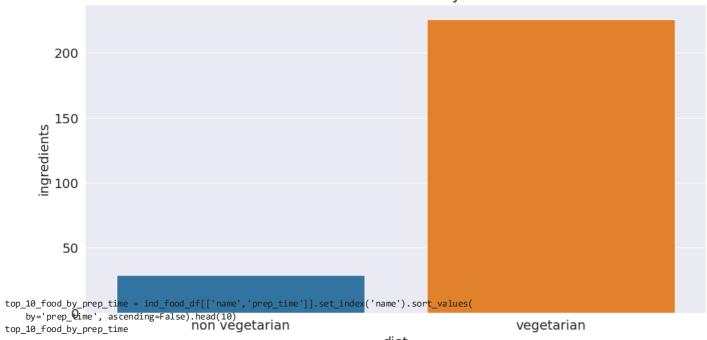
	name	ingredients	diet	prep_time	cook_time	flavor_profile	course	state	region	##
0	Balu shahi	Maida flour, yogurt, oil, sugar	vegetarian	45	25	sweet	dessert	West Bengal	East	
1	Boondi	Gram flour, ghee, sugar	vegetarian	80	30	sweet	dessert	Rajasthan	West	
2	Gajar ka halwa	Carrots, milk, sugar, ghee, cashews, raisins	vegetarian	15	60	sweet	dessert	Punjab	North	
3	Ghevar	Flour, ghee, kewra, milk, clarified butter, su	vegetarian	15	30	sweet	dessert	Rajasthan	West	
4	Gulab jamun	Milkpowder, plainflour, bakingpowder, ghee,	vegetarian	15	40	sweet	dessert	West Bengal	East	
250	Til Pitha	Glutinous rice, black sesame seeds, gur	vegetarian	5	30	sweet	dessert	Assam	North East	
251	Bebinca	Coconut milk, egg yolks, clarified butter, all	vegetarian	20	60	sweet	dessert	Goa	West	
252	Shufta	Cottagecheese, drydates, driedrosepetals,	vegetarian	-1	-1	sweet	dessert	Jammu & Kashmir	North	
253	Mawa Bati	$\label{eq:milk} \textit{Milk}\textit{powder}, \textit{dry}\textit{fruits}, \textit{arrowroot}\textit{powder}, \textit{all}$	vegetarian	20	45	sweet	dessert	Madhya Pradesh	Central	
254		Brownrice, fennelseeds, gratedcoconut, blac	vegetarian	-1	-1	sweet	dessert	Goa	West	
255 ro	ws x 9 columns									

```
food_by_diet = ind_food_df.groupby(by=['diet'])['ingredients'].count()
```

food_by_diet

diet





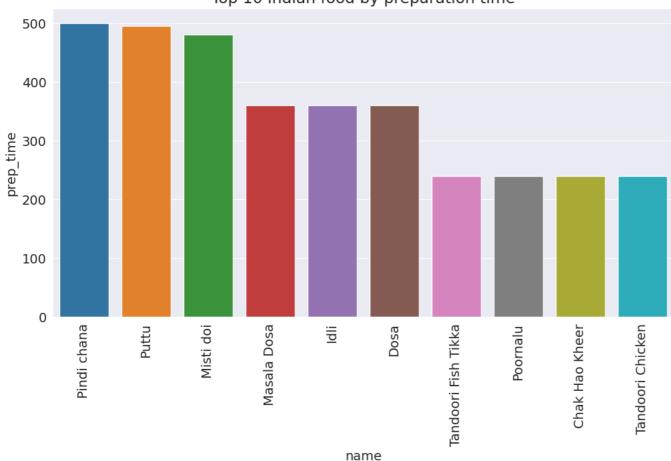
diet prep time

name		111
Pindi chana	500	
Puttu	495	
Misti doi	480	
Masala Dosa	360	
ldli	360	
Dosa	360	
Tandoori Fish Tikka	240	
Poornalu	240	
Chak Hao Kheer	240	
Tandoori Chicken	240	

plt.figure(figsize=(12,6)) plt.xticks(rotation=90) plt.title('Top 10 Indian food by preparation time') plt.xlabel('Indian Food') plt.ylabel('Preparation Time') sns.barplot(x=top_10_food_by_prep_time.index,

y=top_10_food_by_prep_time.prep_time);





```
region_count = ind_food_df.region.value_counts()
region_count
                  87
    West
                  59
    South
                  49
    North
                  31
    East
    North East
                  25
    Central
    Name: region, dtype: int64
import matplotlib.pyplot as plt fig, ax = plt.subplots(figsize=(12, 12),
subplot_kw=dict(aspect="equal"))
data = region_count.values
ingredients = region_count.index
```

```
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```

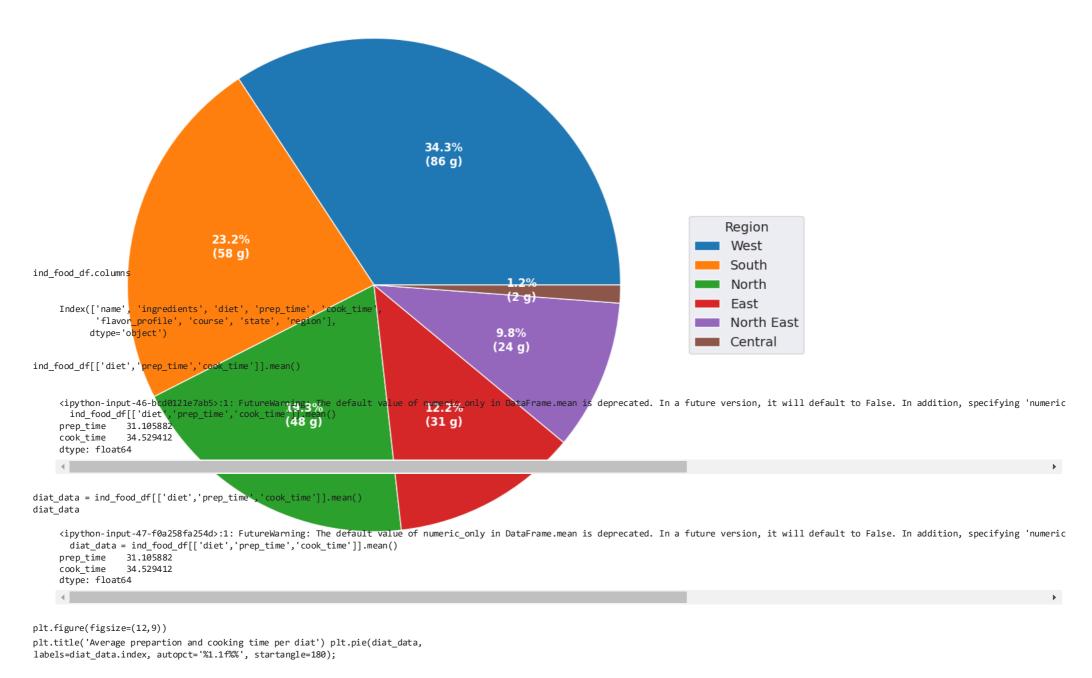
```
def func(pct, allvals):
    absolute = int(pct/100.*np.sum(allvals))
return "{:.1f}%\n({:d} g)".format(pct, absolute)

wedges, texts, autotexts = ax.pie(data, autopct=lambda pct: func(pct, region_count),
textprops=dict(color="w"))

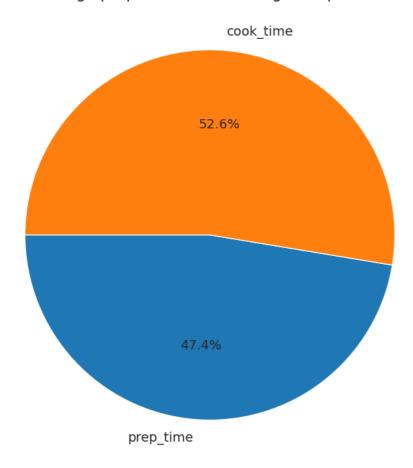
ax.legend(wedges, ingredients, title="Region",
loc="center left", bbox_to_anchor=(1, 0, 0.5, 1))
plt.setp(autotexts, size=12, weight="bold")

ax.set_title("Region-wise contribution") plt.show()
```

Region-wise contribution



Average prepartion and cooking time per diat





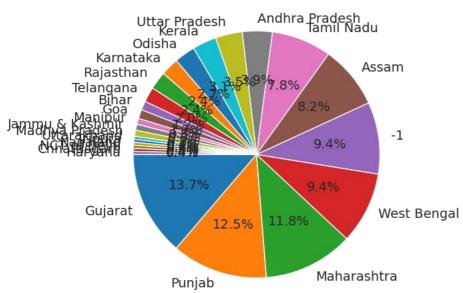
```
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```

```
array(['sweet', 'spicy', 'bitter', '-1', 'sour'], dtype=object)
     251
               Bebinca
                                 sweet
Mydict = 252{} Shufta
                                 sweet
                                 sweet
      253
             Mawa Bati
                                 sweet
for i in flavorProfiles:
    Mydict254 [i] = []Pinaca
print(255Mydict rows x 2 columns)
    for ind in
dish_per_flavorProfile.index:
    Mydict[dish_per_flavorProfile['flavor_profile'][ind]].append(dish_per_flavorProfile['name'][ind])
    {'sweet': [], 'spicy': [], 'bitter': [], '-1': [], 'sour': []}
for i in flavorProfiles:
                           print(i, '\n',
"-"*25, '\n', Mydict[i])
    sweet
      -----
     ['Balu shahi', 'Boondi', 'Gajar ka halwa', 'Ghevar', 'Gulab jamun', 'Imarti', 'Jalebi', 'Kaju katli', 'Kalakand', 'Kheer', 'Laddu', 'Lassi', 'Nankhatai', 'Petha', 'Phirni', 'Rabri', 'Sheera', 'Si
     ['Maach Jhol', 'Pork Bharta', 'Galho', 'Aloo gobi', 'Aloo tikki', 'Aloo matar', 'Aloo shimla mirch', 'Bhatura', 'Bhindi masala', 'Biryani', 'Butter chicken', 'Chana masala', 'Chicken razala', 'Ch
     bitter
     ['Aloo methi', 'Karela bharta', 'Methi na Gota', 'Muthiya']
     -1
      -----
     ['Chapati', 'Naan', 'Rongi', 'Kanji', 'Pachadi', 'Paniyaram', 'Paruppu sadam', 'Puli sadam', 'Puttu', 'Sandige', 'Sevai', 'Thayir sadam', 'Theeyal', 'Bhakri', 'Copra paak', 'Dahi vada', 'Dalithoy
      ['Keri no ras']
state_wise_counts = ind_food_df.state.value_counts()
state_wise_counts
     Gujarat
                       35
    Punjab
                       32
    Maharashtra
                       30
    West Bengal
                       24
    -1
                       21
    Assam
    Tamil Nadu
                       20
    Andhra Pradesh
    Uttar Pradesh
                        9
    Kerala
                        8
    0disha
    Karnataka
    Rajasthan
                        6
    Telangana
    Bihar
                        3
                        3
    Goa
    Manipur
                        2
                        2
    Jammu & Kashmir
```

Madhya Pradesh 2
Uttarakhand 1
Tripura 1
Nagaland 1
NCT of Delhi 1
Chhattisgarh 1
Haryana 1
Name: state, dtype: int64

plt.figure(figsize=(12,6)) plt.title('pie') plt.pie(state_wise_counts.values,
labels=state_wise_counts.index, autopct='%1.1f%%', startangle=180);





sns.countplot(y=ind_food_df.state)
plt.xticks(rotation=75); plt.title('EdLevel')
plt.ylabel(None);

