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April 2, 2024

```
[1]: pip install tabula.py
     Collecting tabula.py
       Downloading tabula_py-2.9.0-py3-none-any.whl (12.0 MB)
                                 12.0/12.0 MB
     24.9 MB/s eta 0:00:00
     Requirement already satisfied: pandas>=0.25.3 in
     /usr/local/lib/python3.10/dist-packages (from tabula.py) (1.5.3)
     Requirement already satisfied: numpy in /usr/local/lib/python3.10/dist-packages
     (from tabula.py) (1.25.2)
     Requirement already satisfied: distro in /usr/lib/python3/dist-packages (from
     tabula.py) (1.7.0)
     Requirement already satisfied: python-dateutil>=2.8.1 in
     /usr/local/lib/python3.10/dist-packages (from pandas>=0.25.3->tabula.py) (2.8.2)
     Requirement already satisfied: pytz>=2020.1 in /usr/local/lib/python3.10/dist-
     packages (from pandas>=0.25.3->tabula.py) (2023.4)
     Requirement already satisfied: six>=1.5 in /usr/local/lib/python3.10/dist-
     packages (from python-dateutil>=2.8.1->pandas>=0.25.3->tabula.py) (1.16.0)
     Installing collected packages: tabula.py
     Successfully installed tabula.py-2.9.0
 [2]: pip install tabulate
     Requirement already satisfied: tabulate in /usr/local/lib/python3.10/dist-
     packages (0.9.0)
 [4]: from tabula import read_pdf
      from tabulate import tabulate
[20]: import warnings
      warnings.filterwarnings("ignore")
[21]: pdf_file = 'FoodList.pdf'
      page_number = 1
      tables_df = read_pdf(pdf_file, pages=page_number)
```

print(tables_df)

[BREADS & CEREALS	Portion size * Unnamed	d: 0
energy content		
O Bagel (1 average)	140 cals (45g) N	VaN
Medium		
	86 cals (per biscuit)	VaN
High		
2 Jaffa cake	48 cals (per biscuit)	VaN
Med-High		
3 Bread white (thick slice)	96 cals (1 slice 40g) N	VaN
Medium		
4 Bread wholemeal (thick)	88 cals (1 slice 40g) N	1aN
Low-med		
5 Chapatis	250 cals N	VaN
Medium		
6 Cornflakes	130 cals (35g) N	VaN
Med-High	•	
7 Crackerbread	17 cals per slice N	JaN
Low Calorie	•	
8 Cream crackers	35 cals (per cracker) N	JaN
Low / portion	1	
9 Crumpets	93 cals (per crumpet) N	JaN
Low-Med		
10 Flapjacks basic fruit mix	320 cals N	JaN
High		
11 Macaroni (boiled)	238 cals (250g) N	JaN
Low calorie	200 0012 (2008)	·
12 Muesli	195 cals (50g) N	JaN
Med-high	100 0015 (006)	·
	300 cals (small plate size)	JaN
Medium	ovo carb (bmarr prace brze)	vaiv
Noodles (boiled)	175 cals (250g) N	JaN
Low calorie	175 Cais (250g)	vaiv
15 Pasta (normal boiled)	330 cals (300g) N	JaN
	330 Cais (300g)	vaiv
Low calorie 16 Pasta (wholemeal boiled)	215 cola (200a)	I N
16 Pasta (wholemeal boiled) Low calorie	315 cals (300g) N	VaN
	102] - (250-)	T _ NT
17 Porridge oats (with water)	193 cals (350g) N	VaN
Low calorie	010 7 (000)	T _ NT
18 Potatoes** (boiled)	210 cals (300g) N	JaN
Low calorie	400 7 (200)	T 3.
19 Potatoes** (roast)	420 cals (300g) N	JaN
Medium		

[20 rows x 5 columns]]

```
[22]: cleaned_tables = [table.dropna(axis='columns') for table in tables_df]

for idx, table in enumerate(cleaned_tables):
    print(f"Table {idx+1} after dropping NaN values:")

    print(table)
```

Table 1 after dropping NaN values:	
BREADS & CEREALS Portion size * per 100 gram	s (3.5
oz) energy content	
0 Bagel (1 average) 140 cals (45g)	310
cals Medium	
1 Biscuit digestives 86 cals (per biscuit)	480
cals High	
2 Jaffa cake 48 cals (per biscuit)	370
cals Med-High	
3 Bread white (thick slice) 96 cals (1 slice 40g)	240
cals Medium	
4 Bread wholemeal (thick) 88 cals (1 slice 40g)	220
cals Low-med	
5 Chapatis 250 cals	300
cals Medium	
6 Cornflakes 130 cals (35g)	370
cals Med-High	
7 Crackerbread 17 cals per slice	325
cals Low Calorie	
8 Cream crackers 35 cals (per cracker)	440
cals Low / portion	
9 Crumpets 93 cals (per crumpet)	198
cals Low-Med	
10 Flapjacks basic fruit mix 320 cals	500
cals High	
11 Macaroni (boiled) 238 cals (250g)	95
cals Low calorie	
12 Muesli 195 cals (50g)	390
cals Med-high	
Naan bread (normal) 300 cals (small plate size)	320
cals Medium	
Noodles (boiled) 175 cals (250g)	70
cals Low calorie	
15 Pasta (normal boiled) 330 cals (300g)	110
cals Low calorie	
16 Pasta (wholemeal boiled) 315 cals (300g)	105
cals Low calorie	
17 Porridge oats (with water) 193 cals (350g)	55
cals Low calorie	

```
18
                 Potatoes** (boiled)
                                                    210 cals (300g)
                                                                                     70
              Low calorie
     cals
                  Potatoes** (roast)
                                                    420 cals (300g)
     19
                                                                                    140
     cals
                   Medium
[23]: page_number = 3
      tables_df = read_pdf(pdf_file, pages=page_number)
      print(tables_df)
     90 cals per cake 200 cals
                                                                          Medium
                          Fish cake
     0
                      Fish fingers
                                     50 cals per piece
                                                          220 cals
                                                                         Medium
     1
                             Gammon
                                               320 cals
                                                          280 cals
                                                                       Med-High
     2
                     Haddock fresh
                                               200 cals
                                                          110 cals
                                                                    Low calorie
     3
                     Halibut fresh
                                               220 cals
                                                          125 cals
                                                                    Low calorie
     4
                                NaN
                                                    NaN
                                                               NaN
                                                                             NaN
     5
                                Ham
                                                 6 cals
                                                          240 cals
                                                                         Medium
     6
             Herring fresh grilled
                                               300 cals
                                                          200 cals
                                                                         Medium
     7
                             Kidney
                                               200 cals
                                                          160 cals
                                                                         Medium
     8
                             Kipper
                                               200 cals
                                                          120 cals
                                                                    Low calorie
     9
                                NaN
                                                    NaN
                                                               NaN
                                                                             NaN
     10
                              Liver
                                               200 cals
                                                          150 cals
                                                                         Medium
                                               150 cals
                                                          300 cals
                                                                         Medium
     11
                        Liver pate
     12
                      Lamb (roast)
                                               300 cals
                                                         300 cals
                                                                       Med-High
     13
                    Lobster boiled
                                               200 cals
                                                          100 cals
                                                                    Low calorie
                                                    NaN
     14
                                NaN
                                                               NaN
                                                                             NaN
                     Luncheon meat
                                               300 cals
                                                         400 cals
     15
                                                                            High
     16
                          Mackeral
                                               320 cals
                                                          300 cals
                                                                         Medium
                                                90 cals
                                                           90 cals
                                                                        Low-Med
     17
                            Mussels
     18
                    Pheasant roast
                                               200 cals
                                                         200 cals
                                                                         Medium
                                               140 cals
     19
                Pilchards (tinned)
                                                          140 cals
                                                                         Medium
     20
                                               180 cals
                                                          100 cals
                                                                       Low- Med
                             Prawns
                                               320 cals
     21
                               Pork
                                                          290 cals
                                                                       Med-High
     22
                          Pork pie
                                               320 cals
                                                         450 cals
                                                                            High
     23
                             Rabbit
                                               200 cals
                                                          180 cals
                                                                         Medium
     24
                      Salmon fresh
                                               220 cals
                                                          180 cals
                                                                         Medium
     25
            Sardines tinned in oil
                                               220 cals
                                                         220 cals
                                                                         Medium
     26
         Sardines in tomato sauce
                                               180 cals
                                                         180 cals
                                                                         Medium
                                               250 cals
     27
                Sausage pork fried
                                                         320 cals
                                                                            High
              Sausage pork grilled
                                               220 cals
                                                         280 cals
     28
                                                                       Med-High
     29
                      Sausage roll
                                               290 cals 480 cals
                                                                            High
     30
               Scampi fried in oil
                                               400 cals
                                                          340 cals
                                                                            High
     31
                Steak & kidney pie
                                               400 cals
                                                         350 cals
                                                                            High]
[24]: tables_json = [table.to_json() for table in tables_df]
```

```
for idx, table_json in enumerate(tables_json):
        print(f"Table {idx + 1};")
        print(table_json)
        print()
     Table 1;
     {"Fish cake":{"0":"Fish fingers","1":"Gammon","2":"Haddock fresh","3":"Halibut
     fresh", "4":null, "5": "Ham", "6": "Herring fresh
     grilled","7":"Kidney","8":"Kipper","9":null,"10":"Liver","11":"Liver
     pate","12":"Lamb (roast)","13":"Lobster boiled","14":null,"15":"Luncheon
     meat", "16": "Mackeral", "17": "Mussels", "18": "Pheasant roast", "19": "Pilchards
     (tinned)","20":"Prawns","21":"Pork","22":"Pork pie","23":"Rabbit","24":"Salmon
     fresh","25":"Sardines tinned in oil","26":"Sardines in tomato
     sauce","27": "Sausage pork fried", "28": "Sausage pork grilled", "29": "Sausage
     roll", "30": "Scampi fried in oil", "31": "Steak & kidney pie"}, "90 cals per
     {\tt cake":\{"0":"50\ cals\ per\ piece","1":"320\ cals","2":"200\ cals","3":"220}\\
     cals","4":null,"5":"6 cals","6":"300 cals","7":"200 cals","8":"200
     cals", "9":null, "10": "200 cals", "11": "150 cals", "12": "300 cals", "13": "200
     cals","14":null,"15":"300 cals","16":"320 cals","17":"90 cals","18":"200
     cals","19":"140 cals","20":"180 cals","21":"320 cals","22":"320 cals","23":"200
     cals","24":"220 cals","25":"220 cals","26":"180 cals","27":"250 cals","28":"220
     cals","29":"290 cals","30":"400 cals","31":"400 cals"},"200 cals":{"0":"220
     cals","1":"280 cals","2":"110 cals","3":"125 cals","4":null,"5":"240
     cals", "6": "200 cals", "7": "160 cals", "8": "120 cals", "9": null, "10": "150
     cals","11":"300 cals","12":"300 cals","13":"100 cals","14":null,"15":"400
     cals","16":"300 cals","17":"90 cals","18":"200 cals","19":"140 cals","20":"100
     cals","21":"290 cals","22":"450 cals","23":"180 cals","24":"180 cals","25":"220
     cals","26":"180 cals","27":"320 cals","28":"280 cals","29":"480 cals","30":"340
     cals", "31": "350 cals"}, "Medium": {"0": "Medium", "1": "Med-High", "2": "Low
     calorie", "3": "Low
     calorie","4":null,"5":"Medium","6":"Medium","7":"Medium","8":"Low
     calorie", "9":null, "10": "Medium", "11": "Medium", "12": "Med-High", "13": "Low
     calorie","14":null,"15":"High","16":"Medium","17":"Low-
     Med","18":"Medium","19":"Medium","20":"Low- Med","21":"Med-High","22":"High","23
     ":"Medium","24":"Medium","25":"Medium","26":"Medium","27":"High","28":"Med-
     High","29":"High","30":"High","31":"High"}}
[25]: tables = read pdf(pdf_file, pages='all', multiple tables='True')
      print(tables)
                     BREADS & CEREALS
                                                     Portion size * ... Unnamed: 0
     energy content
                 Bagel ( 1 average )
                                                    140 cals (45g) ...
                                                                              NaN
     Medium
                 Biscuit digestives 86 cals (per biscuit) ...
     1
                                                                              NaN
     High
```

2 Jaffa cake	48 cals (per biscuit)	NaN
Med-High 3 Bread white (thick slice)	96 cals (1 slice 40g)	NaN
Medium 4 Bread wholemeal (thick)	88 cals (1 slice 40g)	NaN
Low-med	g	
5 Chapatis Medium	250 cals	NaN
6 Cornflakes Med-High	130 cals (35g)	NaN
7 Crackerbread	17 cals per slice	NaN
Low Calorie 8 Cream crackers	35 cals (per cracker)	NaN
Low / portion 9 Crumpets	93 cals (per crumpet)	NaN
Low-Med	000	27 27
10 Flapjacks basic fruit mix High	320 cals	NaN
11 Macaroni (boiled)	238 cals (250g)	NaN
Low calorie 12 Muesli	195 cals (50g)	NaN
Med-high	. 0	
Naan bread (normal)	300 cals (small plate size)	NaN
Medium	455 3 (OSO)	
14 Noodles (boiled) Low calorie	175 cals (250g)	NaN
15 Pasta (normal boiled)	330 cals (300g)	NaN
Low calorie	. 0	
16 Pasta (wholemeal boiled)	315 cals (300g)	NaN
Low calorie 17 Porridge oats (with water)	193 cals (350g)	NaN
Low calorie		
18 Potatoes** (boiled)	210 cals (300g)	NaN
Low calorie 19 Potatoes** (roast)	420 cals (300g)	NaN
Medium	<u> </u>	
[20 rows x 5 columns]. Rice	e (white boiled) 420 cals (300g)	140 cals
Unnamed: 0 Low calorie	_	110 0010
O NaN	NaN NaN NaN	
NaN	EOO cola 200 cola NoN	Himh in
1 Rice (egg-fried) portion	500 cars 200 cars Nan	High in
2 Rice (Brown) 405	cals (300g) 135 cals NaN	Low
calorie Rice cakes 28 Cal	s = 1 slice 373 Cals NaN	
Medium 4 Ryvita Multi grain 37 Cal	s per slice 331 Cals NaN	
inyviod nuite grain or dal	TO POI BITCE OUT OUTS MAIN	

Medium 5 Ryvita + seed & Oats 180	Cals 4 slices	362	Cals	NaN	
Medium					
6 Spaghetti (boiled) 30	3 cals (300g)	101	cals	NaN	Low
calorie, Unnam	ed: 0	Ur	nnamed: 1	Unnamed: 2	•••
Unnamed: 5 Unnamed: 6 Un	nnamed: 7				
0 NaN	Meats &	Fish	Na	aN	NaN
energy content NaN					
1 NaN		NaN	(3.5 oz	z)	NaN
NaN NaN					
2 NaN		NaN	Na	aN	NaN
NaN NaN					
3 Anchovies tinned	300	cals	300 cal	Ls	NaN
NaN NaN					
4 Bacon average fried 25	O cals (2 rash	ners)	500 cal	Ls	NaN
NaN NaN					
5 Bacon average grilled	150	cals	380 cal	ls	NaN
NaN NaN					
6 Beef (roast)	300	cals	280 cal	Ls	NaN
NaN NaN		_			
7 Beef burgers frozen	320	cals	280 cal	LS	NaN
NaN NaN		_			
8 Chicken	220	cals	200 cal	LS	NaN
NaN NaN	50	-	F0 7		37 37
9 Cockles	50	cals	50 cal	LS	NaN
NaN NaN	450	_	400		
10 Cod fresh	150	cals	100 cal	LS	NaN
NaN NaN	100	_	200		
11 Cod chip shop food	400	cals	200 cal	LS	NaN
NaN NaN	000	,	440 7		N. N.
12 Crab fresh	200	cals	110 cal	LS	NaN
NaN NaN	400	7-	420 7	· _	NI - NI
13 Duck roast	400	cals	430 cal	LS	NaN
NaN NaN					
[14 0]	т	74 -1	1 00		l 0001 <i>-</i>
[14 rows x 9 columns],	Г	Fish o	cake 90	cais per ca	ke 200 cals
Medium O Figh fingers	EO sola non r		000 001	s Medi	
•	50 cals per p		220 cals		
Gammon 2 Haddock fresh		cals	280 cals 110 cals		-
		cals			
3 Halibut fresh	220	cals	125 cals		
4 NaN	6	NaN	NaN		aN
5 Ham 6 Harring frosh grilled		cals	240 cals		
6 Herring fresh grilled 7 Kidney		cals	200 cals 160 cals		
•		cals			
8 Kipper 9 NaN	200	cals	120 cals		aN
	200	NaN			
10 Liver	200	cals	150 cals	s Medi	uili

```
11
                   Liver pate
                                          150 cals
                                                     300 cals
                                                                     Medium
12
                 Lamb (roast)
                                          300 cals
                                                     300 cals
                                                                   Med-High
13
               Lobster boiled
                                          200 cals
                                                     100 cals
                                                                Low calorie
14
                           NaN
                                               NaN
                                                          NaN
                                                                        NaN
                Luncheon meat
15
                                          300 cals
                                                     400 cals
                                                                       High
16
                     Mackeral
                                          320 cals
                                                     300 cals
                                                                     Medium
                                                      90 cals
17
                      Mussels
                                           90 cals
                                                                    Low-Med
                                          200 cals
                                                     200 cals
18
               Pheasant roast
                                                                     Medium
19
          Pilchards (tinned)
                                          140 cals
                                                     140 cals
                                                                     Medium
20
                                          180 cals
                                                     100 cals
                                                                   Low- Med
                       Prawns
21
                                          320 cals
                                                     290 cals
                                                                   Med-High
                          Pork
22
                     Pork pie
                                          320 cals
                                                     450 cals
                                                                       High
23
                        Rabbit
                                          200 cals
                                                     180 cals
                                                                     Medium
                                          220 cals
24
                 Salmon fresh
                                                     180 cals
                                                                     Medium
25
      Sardines tinned in oil
                                          220 cals
                                                     220 cals
                                                                     Medium
26
    Sardines in tomato sauce
                                          180 cals
                                                     180 cals
                                                                     Medium
27
          Sausage pork fried
                                          250 cals
                                                     320 cals
                                                                       High
28
        Sausage pork grilled
                                          220 cals
                                                     280 cals
                                                                   Med-High
29
                 Sausage roll
                                          290 cals
                                                     480 cals
                                                                       High
30
         Scampi fried in oil
                                          400 cals
                                                     340 cals
                                                                       High
                                          400 cals
                                                     350 cals
31
          Steak & kidney pie
                                                                       High,
Taramasalata 130 cals 490 cals
                                            High
0
         Trout fresh 200 cals
                                  120 cals
                                             Low calorie
1
                  NaN
                             NaN
                                        NaN
                                                      NaN
                                             Low calorie
2
   Tuna tinned water
                        100 cals
                                  100 cals
3
                  NaN
                             NaN
                                        NaN
                                                      NaN
4
     Tuna tinned oil
                       180 cals
                                  180 cals
                                                   Medium
5
                       200 cals
                                  160 cals
               Turkey
                                                   Medium
                       300 cals 240 cals
6
                 Veal
                                                   Medium,
                                                                           Unnamed: 0
Unnamed: 1
               Unnamed: 2
                            ... Unnamed: 5
                                                Unnamed: 6
                                                            Unnamed: 7
                      NaN
                            Fruits & Vegetables
                                                            NaN
                                                                            NaN
energy content
                        NaN
1
                      NaN
                                             NaN
                                                            oz)
                                                                            NaN
NaN
            NaN
2
                      {\tt NaN}
                                             NaN
                                                            NaN
                                                                            NaN
NaN
             NaN
3
                                     44 calories
                                                    44 calories
                    Apple
                                                                            NaN
NaN
             NaN
4
                   Banana
                                        107 cals
                                                    65 calories
                                                                            NaN
             NaN
NaN
       Beans baked beans
5
                                        170 cals
                                                    80 calories
                                                                            NaN
NaN
             NaN
6
    Beans dried (boiled)
                                        180 cals
                                                   130 calories
                                                                            NaN
            NaN
NaN
7
             Blackberries
                                         25 cals
                                                    25 calories
                                                                            NaN
NaN
             NaN
8
             Blackcurrant
                                         30 cals
                                                    30 calories ...
                                                                            NaN
NaN
            NaN
```

9		Broccoli		27	7 cals		32	2 cal	Ls		Na	N
NaN	NaN											
10	Cabbage	(boiled)	15	cal	Lories	20	ca.	Lorie	es		Na	N
NaN	NaN											
11	Carrot	(boiled)	16	cal	lories	25	ca	Lorie	es		Na	N
NaN	NaN											
12	Cauliflower	(boiled)	20	cal	Lories	30	ca.	Lorie	es		Na	N
NaN	NaN											
13	Celery	(boiled)	5	cal	lories	10	ca.	Lorie	es		Na	N
NaN	NaN											
14		Cherry	35	cal	lories	50	ca.	Lorie	es		Na	N
NaN	NaN											
15	(Courgette		8	3 cals		20) cal	Ls		Na	N
NaN	NaN											
16		Cucumber	3	cal	lories	10	ca	Lorie	es		Na	N
NaN	NaN											
17		Dates	100	cal	lories	235	ca	Lorie	es		Na	N
NaN	NaN											
18		Grapes	55	cal	Lories	62	ca.	Lorie	es		Na	N
NaN	NaN											
19	Gı	rapefruit	32	cal	Lories	32	ca.	Lorie	es		Na	N
NaN	NaN											
20		Kiwi	40	cal	lories	50	ca.	Lorie	es		Na	N
NaN	NaN											
21	Leek	(boiled)	10	cal	lories	20	ca.	Lorie	es		Na	N
NaN	NaN											
Γοο	rous v 9 col	lumnal		Ιρτ	ntile (hoil.	(ha		150	calor	امع	100
	rows x 9 col			Ler	ntils (boil	ed)		150	calor	ies	100
cal		Medium										
calo		Medium Lettuce		4	calori	.es	15	cal	ories	7	/ery	Low
calo 0 1	ories	Medium Lettuce Melon		4 14	calori calori	.es .es	15 28	calo	ories ories	7	/ery	Low dium
calc 0 1 2	ories Mushrooms ra	Medium Lettuce Melon aw one\raverage		4 14	calori calori 3 ca	.es .es ıls	15 28	calo	ories ories cals	Very	/ery Me low	Low dium cal
calc 0 1 2 3	ories Mushrooms ra Mush	Medium Lettuce Melon aw one\raverage arooms (boiled)		4 14 12	calori calori 3 ca calori	es es ils	15 28 12	calc calc 15 calc	ories ories cals	7	Jery Me low cal	Low dium cal orie
calc 0 1 2 3 4	ories Mushrooms ra Mush	Medium Lettuce Melon aw one\raverage arooms (boiled) shrooms (fried)		4 14 12	calori calori 3 ca calori calori	.es .es .ls .es	15 28 12 145	calc calc 15 calc	ories ories cals ories	Very Low	Very Me low cal	Low dium cal orie High
calc 0 1 2 3 4 5	ories Mushrooms ra Mush	Medium Lettuce Melon aw one\raverage arooms (boiled) shrooms (fried) Olives		4 14 12 .00 50	calori calori 3 ca calori calori	es es es es	15 28 12 145 80	calc calc 15 calc calc	ories cals ories ories ories	Very Low Low	Mery low cal	Low dium cal orie High orie
calc 0 1 2 3 4 5	ories Mushrooms ra Mush	Medium Lettuce Melon aw one\raverage arooms (boiled) shrooms (fried) Olives Onion (boiled)		4 14 12 .00 50	calori calori 3 ca calori calori calori	es es es es	15 28 12 145 80	calc calc 15 calc calc calc	ories cals cries ories ories ories	Very Low Low Low	Mery low cal cal	Low dium cal orie High orie orie
calc 0 1 2 3 4 5 6 7	ories Mushrooms ra Mush	Medium Lettuce Melon aw one\raverage arooms (boiled) shrooms (fried) Olives Onion (boiled) One red Onion		4 14 12 .00 50	calori calori calori calori calori calori 49 ca	es es es es es	15 28 12 145 80	calc calc calc calc calc 33	ories ories ories ories ories ories ories ories ories	Very Low Low Low Low	Mery low cal cal cal	Low dium cal orie High orie orie orie
calc 0 1 2 3 4 5 6 7 8	ories Mushrooms ra Mush	Medium Lettuce Melon aw one\raverage arooms (boiled) shrooms (fried) Olives Onion (boiled) One red Onion Onions spring		4 14 12 00 50 14	calori calori calori calori calori calori 49 ca 3 ca	es es es es es	15 28 12 145 80 18	calc calc calc calc calc calc 25	ories cals cries ories ories ories cals	Very Low Low Low	Mery low cal cal cal low	Low dium cal orie High orie orie orie cal
calc 0 1 2 3 4 5 6 7 8	ories Mushrooms ra Mush	Medium Lettuce Melon aw one\raverage arooms (boiled) shrooms (fried) Olives Onion (boiled) One red Onion Onions spring Onion (fried)		4 14 12 00 50 14	calori calori calori calori calori calori d9 ca 3 ca calori	es	15 28 12 145 80 18	calc calc calc calc calc calc calc calc	ories cals ories ories ories ories cals cals	Very Low Low Low Low Very	Mery low cal cal cal low	Low dium cal orie High orie orie cal High
calc 0 1 2 3 4 5 6 7 8 9	ories Mushrooms ra Mush	Medium Lettuce Melon aw one\raverage arooms (boiled) Shrooms (fried) Olives Onion (boiled) One red Onion Onions spring Onion (fried) Orange	1	4 14 12 00 50 14 86 40	calori	es es es es es es es es	15 28 12 145 80 18	calc calc calc calc calc calc calc calc	ories cals cries ories ories cals cals cals cries	Very Low Low Low Low Very	Mery Me low cal cal cal low	Low dium cal orie High orie orie cal High orie
calc 0 1 2 3 4 5 6 7 8 9 10	ories Mushrooms ra Mush Mus	Medium Lettuce Melon aw one\raverage arooms (boiled) shrooms (fried) Olives Onion (boiled) One red Onion Onions spring Onion (fried) Orange Peas	1	4 14 12 00 50 14 86 40	calori	es es es es es es es es es	15 28 12 145 80 18 155 30 148	calc calc calc calc calc calc calc calc	ories	Very Low Low Low Low Very	Mery Me low cal cal cal low cal	Low dium cal orie High orie cal High orie dium
calc 0 1 2 3 4 5 6 7 8 9 10 11 12	ories Mushrooms ra Mush Mus	Medium Lettuce Melon w one\raverage nrooms (boiled) shrooms (fried) Olives Onion (boiled) One red Onion Onions spring Onion (fried) Orange Peas dried & boiled	1	4 14 12 00 50 14 86 40 210	calori	es	15 28 12 145 80 18 155 30 148 120	calc calc calc calc calc calc calc calc	ories	Very Low Low Low Very Low	Mery Me low cal cal cal low cal Me	Low dium cal orie High orie cal High orie dium orie dium
calc 0 1 2 3 4 5 6 7 8 9 10 11 12 13	ories Mushrooms ra Mush Mus	Medium Lettuce Melon aw one\raverage arooms (boiled) shrooms (fried) Olives Onion (boiled) One red Onion Onions spring Onion (fried) Orange Peas dried & boiled Peach	1	4 14 12 00 50 14 86 40 210 200 35	calori	es es es es es es es es es es	15 28 12 145 80 18 155 30 148 120 30	calc calc calc calc calc calc calc calc	ories	Very Low Low Very Low Low Low	Mery Me low cal cal cal low cal Me cal	Low dium cal orie High orie cal High orie dium orie orie orie
calc 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14	ories Mushrooms ra Mush Mus	Medium Lettuce Melon aw one\raverage arooms (boiled) shrooms (fried) Olives Onion (boiled) One red Onion Onions spring Onion (fried) Orange Peas dried & boiled Peach Pear	1	4 14 12 00 50 14 86 40 210 200 35	calori	es es es es es es es es es es es es	15 28 12 145 80 18 155 30 148 120 30	calc calc calc calc calc calc calc calc	ories	Very Low Low Very Low Low Low Low Low Low	Mery Me low cal cal cal low cal eal cal cal cal cal	Low dium cal orie High orie cal High orie dium orie orie orie orie orie orie orie
calc 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	ories Mushrooms ra Mush Mus	Medium Lettuce Melon w one\raverage nrooms (boiled) shrooms (fried) Olives Onion (boiled) One red Onion Onions spring Onion (fried) Orange Peas dried & boiled Peach Pear Pepper yellow	1	4 14 12 00 50 14 86 40 200 35 45	calori	es e	15 28 12 145 80 18 155 30 148 120 30 38	calc calc calc calc calc calc calc calc	ories	Very Low Low Low Very Low Low Low Low Low Low	Mery Me low cal cal cal low cal Me cal cal cal cal cal cal cal	Low dium cal orie High orie cal High orie dium orie orie orie orie low
calc 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	ories Mushrooms ra Mush Mus	Medium Lettuce Melon aw one\raverage arooms (boiled) shrooms (fried) Olives Onion (boiled) One red Onion Onions spring Onion (fried) Orange Peas dried & boiled Peach Pear Pepper yellow Pineapple	1	4 14 12 00 50 14 86 40 200 35 45 40	calori	es es es es es es es es es es es	15 28 12 145 80 18 155 30 148 120 30 38	calc calc calc calc calc calc calc calc	ories	Very Low Low Very Low Low Low Low Low Low Low	Mery Me low cal cal cal low cal exact Me cal	Low dium cal orie High orie cal High orie dium orie orie orie orie low orie
calc 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	ories Mushrooms ra Mush Mus	Medium Lettuce Melon w one\raverage nrooms (boiled) shrooms (fried) Olives Onion (boiled) One red Onion Onions spring Onion (fried) Orange Peas dried & boiled Peach Pear Pepper yellow	1	4 14 12 00 50 14 86 40 210 335 45 40 30	calori	es es es es es es es es es es es es	15 28 12 145 80 18 155 30 148 120 30 38 40 39	calconditions ca	ories	Very Low Low Very Low Low Low Low Low Low Low Low	Mery Me low cal cal cal low cal decal cal cal cal cal cal cal cal cal cal	Low dium cal orie High orie cal High orie dium orie orie orie orie low

19 Strawberries (1 average)	10 calories	30 calories	Low calorie
20 Sweetcorn	95 calories	130 calories	Medium
21 Sweetcorn on the cob	70 calories	70 calories	Low calorie
22 Tomato	30 calories	20 calories	Low calorie
Tomato cherry 6	cals (3 toms)	17 Cals	Very low cal
24 Tomato puree			
25 Watercress			Low calorie,
			energy content
O Cheese average		0 cals (25g)	
High		(8)	
1 Cheddar types average reduced		NaN	NaN
NaN			
2 fat		130	NaN
Medium		100	
3 Cheese spreads average		90 cals	NaN
Medium		JO Calb	Ivaiv
4 Cottage cheese low fat		40 calories	NaN
low - med		40 Calolles	Ivalv
		40 anla	NoN
5 Cottage cheese		49 cals	NaN
Low calorie		0001-	NI - NI
6 Cream cheese		200 cals	NaN
High		400 7	27 27
7 Cream fresh half		128 cals	NaN
Med-High			
8 Cream fresh single		160 cals	NaN
Med-High			
9 Cream fresh double		340 cals	NaN
High			
10 Cream fresh clotted		480 cals	NaN
High			
11 Custard		210 cals	NaN
Medium			
12 Eggs (1 average size)		90 cals	NaN
Medium			
13 Eggs fried		120 cals	NaN
Med-High			
14 Fromage frais		125 cals	NaN
Low calorie			
15 Ice cream		200 cals	NaN
Medium			
16 Milk whole	175 cals (250m	nl/half pint)	NaN
Med-High			
17 Milk semi-skimmed	125 cals (250m	nl/half pint)	NaN
Medium		-	
18 Milk skimmed	95 cals (250m	nl/half pint)	NaN
Low calorie		•	
19 Milk Soya		90 cals	NaN
Low calorie			

20 Mousse flavored	120 cals	NaN
Medium 21 Omelette with cheese	300 cals	NaN
Medium		
22 Trifle with cream	290 cals	NaN
Medium		
23 Yogurt natural	90 cals	NaN
Low calorie	70 1	N. N.
24 Yogurt reduced fat Low calorie	70 cals	NaN
Low calorie		
[25 rows x 5 columns],	Fats & Sugars	Portion size *
Unnamed: 0 energy content	1 112 11 11 10 10	
O PURE FAT	9 cals (1 gram)	NaN
High	<u> </u>	
1 Bombay mix	250 cals	NaN
High		
2 Butter	112 cals	NaN
High		
	8 cals per piece	NaN Low
calorie		
4 Chocolate	200 cals	NaN
High		
	135 cals (1 tbspoon)	NaN
High	105 1-	N - N
6 Corn snack High	125 cals	NaN
7 Crisps (chips US) average	100 cals	NaN
High	100 caib	IVAIV
8 Honey	42 cals	NaN
Medium		
9 Jam	38 cals	NaN
Medium		
10 Lard	225 cals	NaN
High		
11 Low fat spread	50 cals	NaN
High		
12 Margarine	50 cals …	NaN
High 13 Mars bar	240 0010	NoN
13 Mars bar Med-High	240 cals	NaN
14 Mint sweets	10 cals per piece	NaN
High	io cars her brece "	14014
15 Oils -corn, sunflower, olive	135 cals (1 Thepoon)	NaN
High	(1 1 2 2 2 p 3 0 m)	•
16 Popcorn average	150 cals	NaN
High		
17 Sugar white table sugar	20 cals (1 tspoon)	NaN
_	_	

Medi	ıım				
18	Sweets (boiled)	100 cals		NaN	
Med-	-High				
19	Syrup	15 cals		NaN	
Medi					
20	Toffee	100 cals		NaN	
High	1				
Γ 2 1	rows x 5 columns],	Fru	ıi+	Calories per p	niece
	os (grams) Water Content	110	110	odiories per l	71000
0	Apple (1 average)	44 calories		10.5	85
%	11				
1	Apple cooking	35 calories		9	88
%					
2	Apricot	30 calories		6.7	85
%					
3	Avocado	150 calories		2	60
%	D	407 7 .		0.6	7.5
4 %	Banana	107 calories		26	75
% 5	Blackberries each	1 calorie		0.2	85
%	Diackbellies each	1 Caloffe		0.2	00
6	Blackcurrant each	1.1 calorie		0.25	77
%					
7	Blueberries (new) 100g	49 Cals (100g)		15 g	81
%					
8	Cherry each	2.4 calories		0.6	83
%					
9	Clementine	24 cals		5	66
% 10	C	F1		1 1	1.6
10 %	Currants	5 calories		1.4	16
/• 11	Damson	28 calories		7.2	70
%	Dameon	20 00101105		7.2	10
12	One average date 5g	5 cals		1.2	14
%					
13	Dates with inverted sugar 100g	250 calories		63	12
%					
14	Figs	10 calories		2.4	24
%					
15	Gooseberries	2.6 calories		0.65	80
%	G 100 G	FA1-		4.5	00
16 %	Grapes 100g Seedless	50 cals		15	82
/₀ 17	one average Grape 6g	3 calorica		0.9	82
%	one average drape og	O CUIDITES		0.0	02
18	Grapefruit whole	100 calories		23	65
%	•				

```
%
     20
                                                34 calories
                                                                                    75
                                    Kiwi
                                                                         8
     %
     21
                                                20 calories
                                                                       3.4
                                                                                    85
                                   Lemon
     %
     22
                                 Lychees
                                                 3 calories
                                                                       0.7
                                                                                    80
     %
     23
                                   Mango
                                                40 calories
                                                                       9.5
                                                                                    80
     %
     24
                  Melon Honeydew (130g)
                                                                                    90
                                                36 calories
     %
     25
                Melon Canteloupe (130g)
                                                                         6
                                                                                    93
                                                    25 cals
     %
     26
                                                42 calories
                              Nectarines
                                                                                    80
     %
     27
                                  Olives
                                               6.8 calories
                                                                     trace
                                                                                    63
     %,
                               Orange average
                                                  35 calories 8.5 73 %
     0
                         Orange large 350g
                                                  100 Cals
                                                            22g
                                                                 75 %
     1
             Papaya Diced (small handful)
                                            67 Cals (20g)
                                                             17g
     2
                            Passion Fruit
                                               30 calories
                                                              3
                                                                  50 %
     3
                                   Paw Paw
                                               28 calories
                                                                 70 %
                                               35 calories
     4
                                     Peach
                                                              7
                                                                  80 %
     5
                                      Pear
                                               45 calories
                                                             12 77 %
     6
                                 Pineapple
                                               50 calories
                                                             12 85 %
     7
                                      Plum
                                               25 calories
                                                              6
                                                                 79 %
     8
                                    Prunes
                                                9 calories 2.2
                                                                 37 %
     9
                                                5 calories 1.4
                                                                 13 %
                                   Raisins
                                                                 87 %
     10
                         Raspberries each
                                              1.1 calories 0.2
     11
                                   Rhubarb
                                                8 calories
                                                           0.8
                                                                  95 %
     12
                 Satsuma one average 112g
                                                   29 cals 6.5
                                                                 88 %
     13
                             Satsumas 100g
                                               35 calories 8.5
                                                                  88 %
                 Strawberries (1 average)
                                              2.7 calories 0.6
     14
                                                                  90 %
     15
                                  Sultanas
                                                5 calories 1.4
                                                                 16 %
     16
                                 Tangerine
                                               26 calories
                                                              6
                                                                 60 %
     17
                                                    9 cals 2.2 93 %
                Tomatoes (1 average size)
         Tomatoes Cherry (1 average size)
                                                2 calories 0.5
                                                                  90 %]
[26]: stream_option = True
      page_number = 4
      area = (270, 13, 700, 900)
      tables_df = read_pdf(pdf_file, pages=page_number, stream=stream_option,__
       →area=area)
```

Guava

24 calories

4.4

85

19

```
for idx ,table in enumerate(tables_df):
   print(f"Table {idx + 1}:")
   print(table)
```

Table 1:

	Fruits & Vegetables	Portio	on size *		oz)	energy content
0	Apple	44	calories	44	calories	Low calorie
1	Banana		107 cals	65	${\tt calories}$	Low calorie
2	Beans baked beans		170 cals	80	calories	Low calorie
3	Beans dried (boiled)		180 cals	130	calories	Low calorie
4	Blackberries		25 cals	25	calories	Low calorie
5	Blackcurrant		30 cals	30	calories	Low calorie
6	Broccoli		27 cals		32 cals	Very low
7	Cabbage (boiled)	15	calories	20	calories	Low calorie
8	Carrot (boiled)	16	calories	25	calories	Low calorie
9	Cauliflower (boiled)	20	calories	30	calories	Low calorie
10	Celery (boiled)	5	calories	10	${\tt calories}$	Low calorie
11	Cherry	35	calories	50	${\tt calories}$	Low calorie
12	Courgette		8 cals		20 cals	Very low cal
13	Cucumber	3	calories	10	calories	Low calorie
14	Dates	100	calories	235	calories	Med-High
15	Grapes	55	calories	62	calories	Low calorie
16	Grapefruit	32	calories	32	calories	Low calorie
17	Kiwi	40	calories	50	calories	Low calorie