In [279]:

```python
#Karanjot singh
```

In [323]:

```python
print("Step 1 :-Import the necessary libraries.\n\n")
import pandas as pd
print("\n\nStep 2 :- Import the dataset from this address.\n\n")
print("\n\nStep 3 :- Assign it to a variable called crime.\n\n")
crime = pd.read_csv('uscrime.txt')

print("\n\nStep 4:-What is the type of the columns?\n\n")
print(crime.dtypes)

print("\n\nStep 5 :- Convert the type of the column Year to datetime64.\n\n")
crime['Year'] = pd.to_datetime(crime['Year'],format='%Y')
crime['Year'] = crime['Year'].dt.year

print("\n\nStep 6 :- Set the Year column as the index of the dataframe.\n\n")
crime.set_index(crime["Year"])
print(crime)

print("\n\nStep 7 :- Delete the Total column.\n\n")
del crime['Total']
print(crime)

print("\n\nStep 8 :- Group the year by decades and sum the values.\n\n")
for i in range(len(crime['Year'])):
    crime['Year'] =  crime['Year']//10*10
d1 = crime.groupby(crime['Year']).sum()
print(d1)

print("\n\nStep 9. What is the most dangerous decade to live in the US?\n\n")
df1 = d1.iloc[:,1:].sum(axis = 1)
print(df1.idxmax(),"'s Decade have highest Crime rate and Most Dangerous in USA")
```

Step 1 :-Import the necessary libraries.

Step 2 :- Import the dataset from this address.

Step 3 :- Assign it to a variable called crime.

Step 4:-What is the type of the columns?

```
Year                int64
Population          int64
Total               int64
Violent             int64
Property            int64
Murder              int64
Forcible_Rape       int64
Robbery             int64
Aggravated_assault  int64
```

```
 Burglary                int64
 Larceny_Theft           int64
 Vehicle_Theft           int64
 dtype: object
```

Step 5 :- Convert the type of the column Year to datetime64.

Step 6 :- Set the Year column as the index of the dataframe.

	Year	Population	Total	Violent	Property	Murder	Forcible_Rape \
0	1960	179323175	3384200	288460	3095700	9110	17190
1	1961	182992000	3488000	289390	3198600	8740	17220
2	1962	185771000	3752200	301510	3450700	8530	17550
3	1963	188483000	4109500	316970	3792500	8640	17650
4	1964	191141000	4564600	364220	4200400	9360	21420
5	1965	193526000	4739400	387390	4352000	9960	23410
6	1966	195576000	5223500	430180	4793300	11040	25820
7	1967	197457000	5903400	499930	5403500	12240	27620
8	1968	199399000	6720200	595010	6125200	13800	31670
9	1969	201385000	7410900	661870	6749000	14760	37170
10	1970	203235298	8098000	738820	7359200	16000	37990
11	1971	206212000	8588200	816500	7771700	17780	42260
12	1972	208230000	8248800	834900	7413900	18670	46850
13	1973	209851000	8718100	875910	7842200	19640	51400
14	1974	211392000	10253400	974720	9278700	20710	55400
15	1975	213124000	11292400	1039710	10252700	20510	56090
16	1976	214659000	11349700	1004210	10345500	18780	57080
17	1977	216332000	10984500	1029580	9955000	19120	63500
18	1978	218059000	11209000	1085550	10123400	19560	67610
19	1979	220099000	12249500	1208030	11041500	21460	76390
20	1980	225349264	13408300	1344520	12063700	23040	82990
21	1981	229146000	13423800	1361820	12061900	22520	82500
22	1982	231534000	12974400	1322390	11652000	21010	78770
23	1983	233981000	12108600	1258090	10850500	19310	78920
24	1984	236158000	11881800	1273280	10608500	18690	84230
25	1985	238740000	12431400	1328800	11102600	18980	88670
26	1986	240132887	13211869	1489169	11722700	20613	91459
27	1987	242282918	13508700	1483999	12024700	20096	91110
28	1988	245807000	13923100	1566220	12356900	20680	92490
29	1989	248239000	14251400	1646040	12605400	21500	94500
30	1990	248709873	14475600	1820130	12655500	23440	102560
31	1991	252177000	14872900	1911770	12961100	24700	106590
32	1992	255082000	14438200	1932270	12505900	23760	109060
33	1993	257908000	14144800	1926020	12218800	24530	106010
34	1994	260341000	13989500	1857670	12131900	23330	102220
35	1995	262755000	13862700	1798790	12063900	21610	97470
36	1996	265228572	13493863	1688540	11805300	19650	96250
37	1997	267637000	13194571	1634770	11558175	18208	96153
38	1998	270296000	12475634	1531044	10944590	16914	93103
39	1999	272690813	11634378	1426044	10208334	15522	89411
40	2000	281421906	11608072	1425486	10182586	15586	90178
41	2001	285317559	11876669	1439480	10437480	16037	90863
42	2002	287973924	11878954	1423677	10455277	16229	95235
43	2003	290690788	11826538	1383676	10442862	16528	93883
44	2004	293656842	11679474	1360088	10319386	16148	95089
45	2005	296507061	11565499	1390745	10174754	16740	94347

46	2006	299398484	11401511	1418043	9983568	17030	92757
47	2007	301621157	11251828	1408337	9843481	16929	90427
48	2008	304374846	11160543	1392628	9767915	16442	90479
49	2009	307006550	10762956	1325896	9337060	15399	89241
50	2010	309330219	10363873	1251248	9112625	14772	85593
51	2011	311587816	10258774	1206031	9052743	14661	84175
52	2012	313873685	10219059	1217067	9001992	14866	85141
53	2013	316497531	9850445	1199684	8650761	14319	82109
54	2014	318857056	9475816	1197987	8277829	14249	84041

	Robbery	Aggravated_assault	Burglary	Larceny_Theft	Vehicle_Theft
0	107840	154320	912100	1855400	328200
1	106670	156760	949600	1913000	336000
2	110860	164570	994300	2089600	366800
3	116470	174210	1086400	2297800	408300
4	130390	203050	1213200	2514400	472800
5	138690	215330	1282500	2572600	496900
6	157990	235330	1410100	2822000	561200
7	202910	257160	1632100	3111600	659800
8	262840	286700	1858900	3482700	783600
9	298850	311090	1981900	3888600	878500
10	349860	334970	2205000	4225800	928400
11	387700	368760	2399300	4424200	948200
12	376290	393090	2375500	4151200	887200
13	384220	420650	2565500	4347900	928800
14	442400	456210	3039200	5262500	977100
15	470500	492620	3265300	5977700	1009600
16	427810	500530	3108700	6270800	966000
17	412610	534350	3071500	5905700	977700
18	426930	571460	3128300	5991000	1004100
19	480700	629480	3327700	6601000	1112800
20	565840	672650	3795200	7136900	1131700
21	592910	663900	3779700	7194400	1087800
22	553130	669480	3447100	7142500	1062400
23	506570	653290	3129900	6712800	1007900
24	485010	685350	2984400	6591900	1032200
25	497870	723250	3073300	6926400	1102900
26	542775	834322	3241410	7257153	1224137
27	517704	855088	3236184	7499900	1288674
28	542970	910090	3218100	7705900	1432900
29	578330	951710	3168200	7872400	1564800
30	639270	1054860	3073900	7945700	1635900
31	687730	1092740	3157200	8142200	1661700
32	672480	1126970	2979900	7915200	1610800
33	659870	1135610	2834800	7820900	1563100
34	618950	1113180	2712800	7879800	1539300
35	580510	1099210	2593800	7997700	1472400
36	535590	1037050	2506400	7904700	1394200
37	498534	1023201	2460526	7743760	1354189
38	446625	974402	2329950	7373886	1240754
39	409371	911740	2100739	6955520	1152075
40	408016	911706	2050992	6971590	1160002
41	423557	909023	2116531	7092267	1228391
42	420806	891407	2151252	7057370	1246646
43	414235	859030	2154834	7026802	1261226
44	401470	847381	2144446	6937089	1237851
45	417438	862220	2155448	6783447	1235859
46	447403	860853	2183746	6607013	1192809
47	445125	855856	2176140	6568572	1095769
48	443574	842134	2228474	6588046	958629
49	408742	812514	2203313	6338095	795652

50	369089	781844	2168457	6204601	739565
51	354772	752423	2185140	6151095	716508
52	355051	762009	2109932	6168874	723186
53	345095	726575	1931835	6018632	700294
54	325802	741291	1729806	5858496	689527

Step 7 :- Delete the Total column.

	Year	Population	Violent	Property	Murder	Forcible_Rape	Robbery	\
0	1960	179323175	288460	3095700	9110	17190	107840	
1	1961	182992000	289390	3198600	8740	17220	106670	
2	1962	185771000	301510	3450700	8530	17550	110860	
3	1963	188483000	316970	3792500	8640	17650	116470	
4	1964	191141000	364220	4200400	9360	21420	130390	
5	1965	193526000	387390	4352000	9960	23410	138690	
6	1966	195576000	430180	4793300	11040	25820	157990	
7	1967	197457000	499930	5403500	12240	27620	202910	
8	1968	199399000	595010	6125200	13800	31670	262840	
9	1969	201385000	661870	6749000	14760	37170	298850	
10	1970	203235298	738820	7359200	16000	37990	349860	
11	1971	206212000	816500	7771700	17780	42260	387700	
12	1972	208230000	834900	7413900	18670	46850	376290	
13	1973	209851000	875910	7842200	19640	51400	384220	
14	1974	211392000	974720	9278700	20710	55400	442400	
15	1975	213124000	1039710	10252700	20510	56090	470500	
16	1976	214659000	1004210	10345500	18780	57080	427810	
17	1977	216332000	1029580	9955000	19120	63500	412610	
18	1978	218059000	1085550	10123400	19560	67610	426930	
19	1979	220099000	1208030	11041500	21460	76390	480700	
20	1980	225349264	1344520	12063700	23040	82990	565840	
21	1981	229146000	1361820	12061900	22520	82500	592910	
22	1982	231534000	1322390	11652000	21010	78770	553130	
23	1983	233981000	1258090	10850500	19310	78920	506570	
24	1984	236158000	1273280	10608500	18690	84230	485010	
25	1985	238740000	1328800	11102600	18980	88670	497870	
26	1986	240132887	1489169	11722700	20613	91459	542775	
27	1987	242282918	1483999	12024700	20096	91110	517704	
28	1988	245807000	1566220	12356900	20680	92490	542970	
29	1989	248239000	1646040	12605400	21500	94500	578330	
30	1990	248709873	1820130	12655500	23440	102560	639270	
31	1991	252177000	1911770	12961100	24700	106590	687730	
32	1992	255082000	1932270	12505900	23760	109060	672480	
33	1993	257908000	1926020	12218800	24530	106010	659870	
34	1994	260341000	1857670	12131900	23330	102220	618950	
35	1995	262755000	1798790	12063900	21610	97470	580510	
36	1996	265228572	1688540	11805300	19650	96250	535590	
37	1997	267637000	1634770	11558175	18208	96153	498534	
38	1998	270296000	1531044	10944590	16914	93103	446625	
39	1999	272690813	1426044	10208334	15522	89411	409371	
40	2000	281421906	1425486	10182586	15586	90178	408016	
41	2001	285317559	1439480	10437480	16037	90863	423557	
42	2002	287973924	1423677	10455277	16229	95235	420806	
43	2003	290690788	1383676	10442862	16528	93883	414235	
44	2004	293656842	1360088	10319386	16148	95089	401470	
45	2005	296507061	1390745	10174754	16740	94347	417438	
46	2006	299398484	1418043	9983568	17030	92757	447403	
47	2007	301621157	1408337	9843481	16929	90427	445125	
48	2008	304374846	1392628	9767915	16442	90479	443574	
49	2009	307006550	1325896	9337060	15399	89241	408742	

50	2010	309330219	1251248	9112625	14772	85593	369089
51	2011	311587816	1206031	9052743	14661	84175	354772
52	2012	313873685	1217067	9001992	14866	85141	355051
53	2013	316497531	1199684	8650761	14319	82109	345095
54	2014	318857056	1197987	8277829	14249	84041	325802

	Aggravated_assault	Burglary	Larceny_Theft	Vehicle_Theft
0	154320	912100	1855400	328200
1	156760	949600	1913000	336000
2	164570	994300	2089600	366800
3	174210	1086400	2297800	408300
4	203050	1213200	2514400	472800
5	215330	1282500	2572600	496900
6	235330	1410100	2822000	561200
7	257160	1632100	3111600	659800
8	286700	1858900	3482700	783600
9	311090	1981900	3888600	878500
10	334970	2205000	4225800	928400
11	368760	2399300	4424200	948200
12	393090	2375500	4151200	887200
13	420650	2565500	4347900	928800
14	456210	3039200	5262500	977100
15	492620	3265300	5977700	1009600
16	500530	3108700	6270800	966000
17	534350	3071500	5905700	977700
18	571460	3128300	5991000	1004100
19	629480	3327700	6601000	1112800
20	672650	3795200	7136900	1131700
21	663900	3779700	7194400	1087800
22	669480	3447100	7142500	1062400
23	653290	3129900	6712800	1007900
24	685350	2984400	6591900	1032200
25	723250	3073300	6926400	1102900
26	834322	3241410	7257153	1224137
27	855088	3236184	7499900	1288674
28	910090	3218100	7705900	1432900
29	951710	3168200	7872400	1564800
30	1054860	3073900	7945700	1635900
31	1092740	3157200	8142200	1661700
32	1126970	2979900	7915200	1610800
33	1135610	2834800	7820900	1563100
34	1113180	2712800	7879800	1539300
35	1099210	2593800	7997700	1472400
36	1037050	2506400	7904700	1394200
37	1023201	2460526	7743760	1354189
38	974402	2329950	7373886	1240754
39	911740	2100739	6955520	1152075
40	911706	2050992	6971590	1160002
41	909023	2116531	7092267	1228391
42	891407	2151252	7057370	1246646
43	859030	2154834	7026802	1261226
44	847381	2144446	6937089	1237851
45	862220	2155448	6783447	1235859
46	860853	2183746	6607013	1192809
47	855856	2176140	6568572	1095769
48	842134	2228474	6588046	958629
49	812514	2203313	6338095	795652
50	781844	2168457	6204601	739565
51	752423	2185140	6151095	716508
52	762009	2109932	6168874	723186
53	726575	1931835	6018632	700294

54   741291   1729806   5858496   689527

Step 8 :- Group the year by decades and sum the values.

	Population	Violent	Property	Murder	Forcible_Rape	Robbery \
Year						
1960	1915053175	4134930	45160900	106180	236720	1633510
1970	2121193298	9607930	91383800	192230	554570	4159020
1980	2371370069	14074328	117048900	206439	865639	5383109
1990	2612825258	17527048	119053499	211664	998827	5748930
2000	2947969117	13968056	100944369	163068	922499	4230366
2010	1570146307	6072017	44095950	72867	421059	1749809

	Aggravated_assault	Burglary	Larceny_Theft	Vehicle_Theft
Year				
1960	2158520	13321100	26547700	5292100
1970	4702120	28486000	53157800	9739900
1980	7619130	33073494	72040253	11935411
1990	10568963	26750015	77679366	14624418
2000	8652124	21565176	67970291	11412834
2010	3764142	10125170	30401698	3569080

Step 9. What is the most dangerous decade to live in the US?

1990 's Decade have highest Crime rate and Most Dangerous in USA