In [13]:

```
import numpy as np
```

In [14]:

```
import pandas as pd
```

In [15]:

```
import matplotlib.pyplot as plt
```

In [16]:

```
import seaborn as sns
```

In [17]:

```
ds=pd.DataFrame(np.random.rand(10,4),index=pd.date_range('1/1/2000',periods=10),columns=list('ABCD'))
```

In [18]:

```
ds
```

Out[18]:

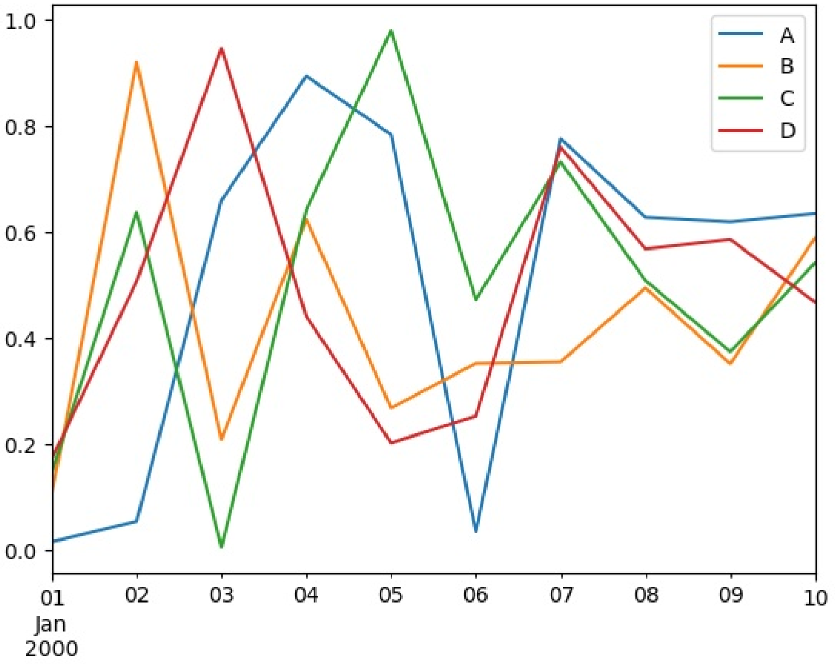
	A	B	C	D
2000-01-01	0.015201	0.106093	0.145365	0.171557
2000-01-02	0.053836	0.918462	0.636275	0.505636
2000-01-03	0.658123	0.208339	0.005316	0.944652
2000-01-04	0.892380	0.622301	0.640382	0.439900
2000-01-05	0.782353	0.267181	0.978136	0.201510
2000-01-06	0.034598	0.351342	0.471091	0.252076
2000-01-07	0.774424	0.354211	0.730765	0.758600
2000-01-08	0.626594	0.493303	0.507329	0.566882
2000-01-09	0.617823	0.350701	0.373245	0.584692
2000-01-10	0.633797	0.587499	0.540295	0.466667

In [19]:

```
ds.plot()
```

Out[19]:

```
<AxesSubplot:>
```

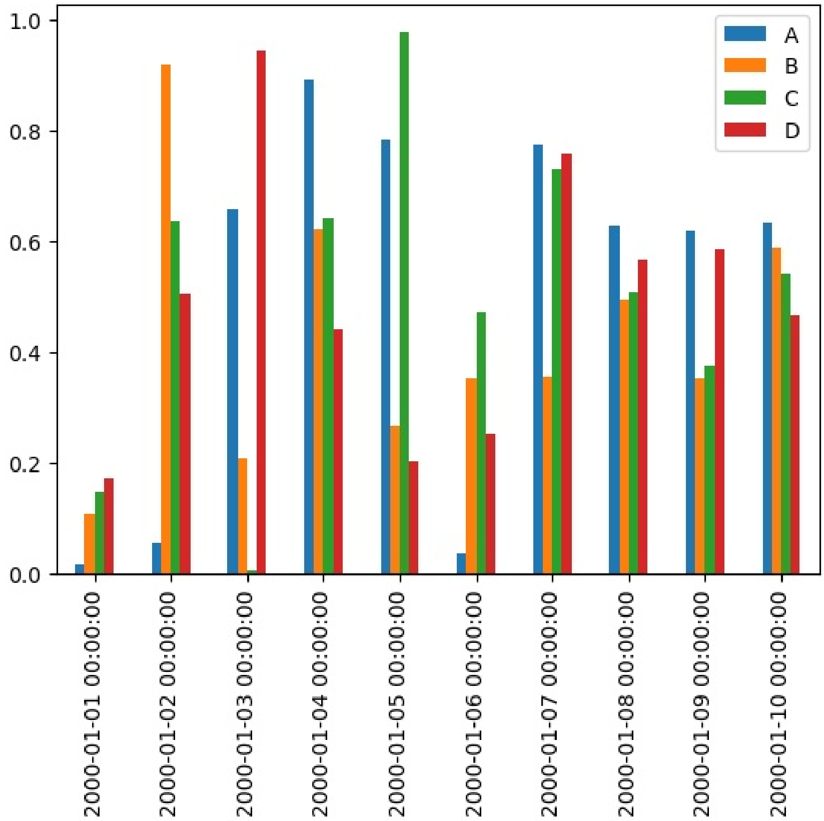


In [20]:

```
ds.plot.bar()
```

Out[20]:

```
<AxesSubplot:>
```



In [22]:
```
ds=pd.DataFrame(np.random.rand(10,4),columns=['A','B','C','D'])
```

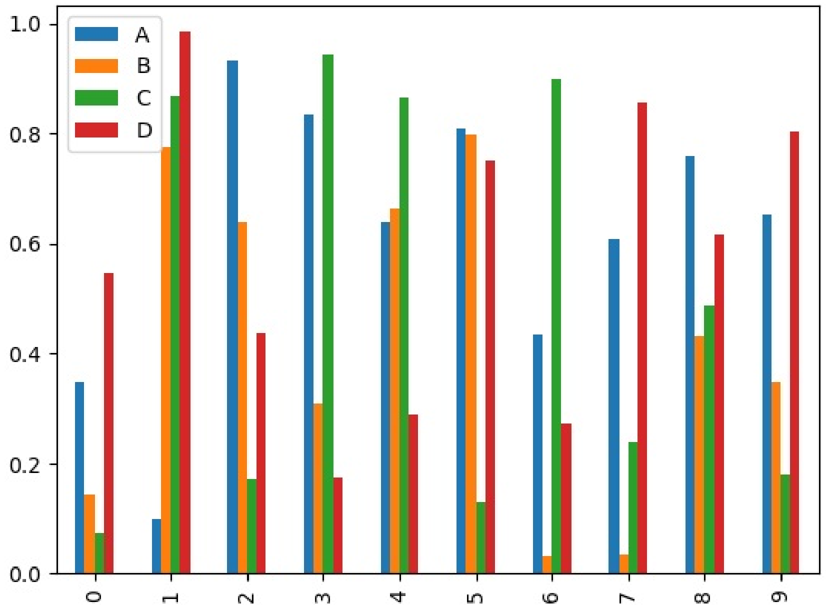
In [23]:
```
ds
```

Out[23]:

	A	B	C	D
0	0.346241	0.144067	0.073560	0.547356
1	0.098559	0.774053	0.867635	0.983599
2	0.930874	0.639254	0.171569	0.436952
3	0.833418	0.307935	0.943154	0.173119
4	0.639242	0.662951	0.864053	0.289035
5	0.808302	0.797592	0.130806	0.749351
6	0.434779	0.032199	0.898004	0.272543
7	0.608021	0.034401	0.238814	0.855944
8	0.757173	0.432519	0.488365	0.616982
9	0.652577	0.346705	0.181211	0.802017

In [24]:
```
ds.plot.bar()
```

Out[24]:
```
<AxesSubplot:>
```

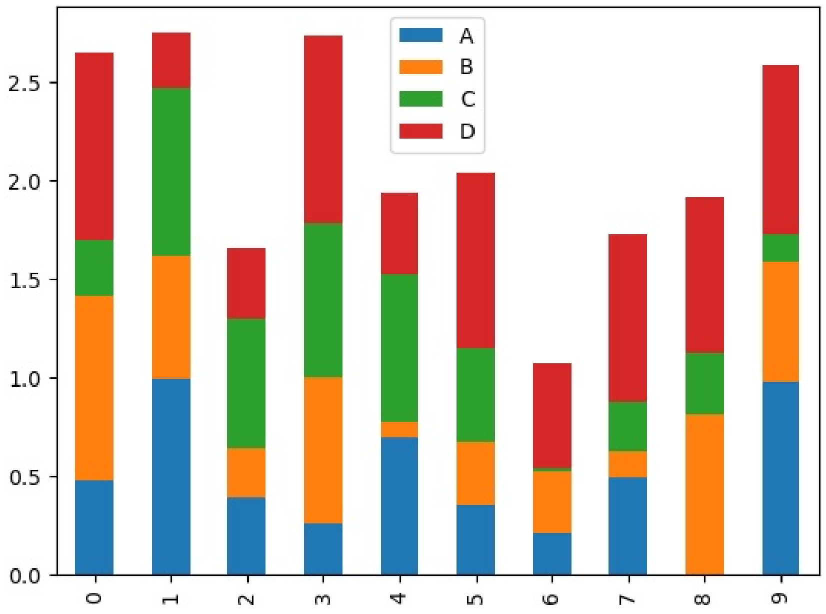


In [28]:

```
ds=pd.DataFrame(np.random.rand(10,4),columns=['A','B','C','D'])
ds.plot.bar(stacked=True)
```

Out[28]:

```
<AxesSubplot:>
```

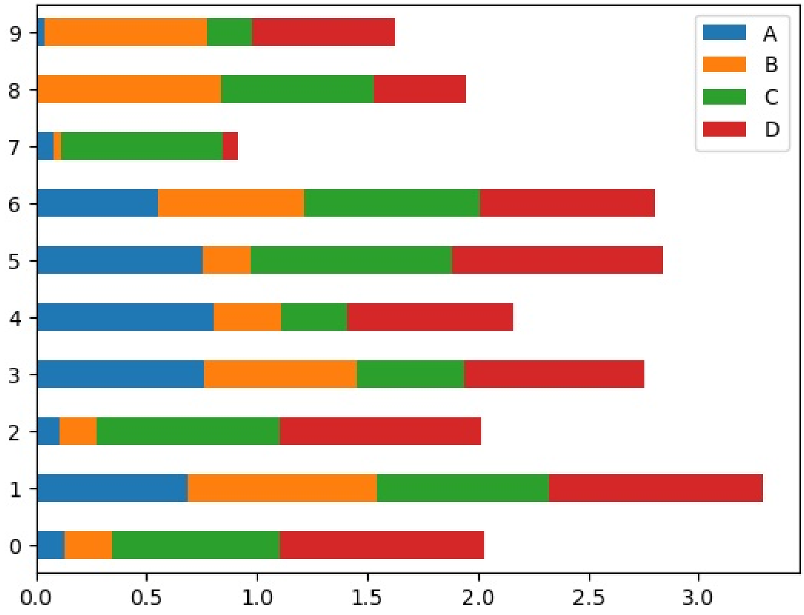


In [29]:

```
ds=pd.DataFrame(np.random.rand(10,4),columns=['A','B','C','D'])
ds.plot.barh(stacked=True)
```

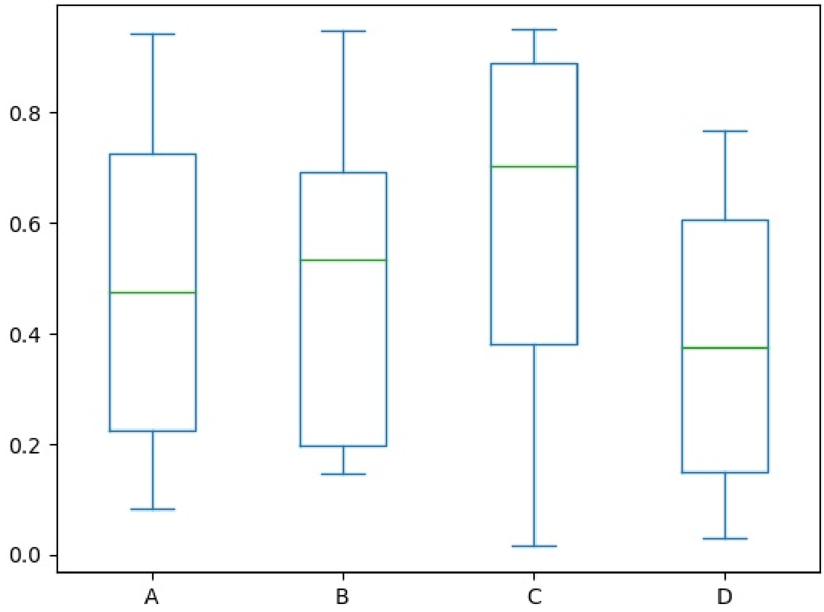
Out[29]:

```
<AxesSubplot:>
```



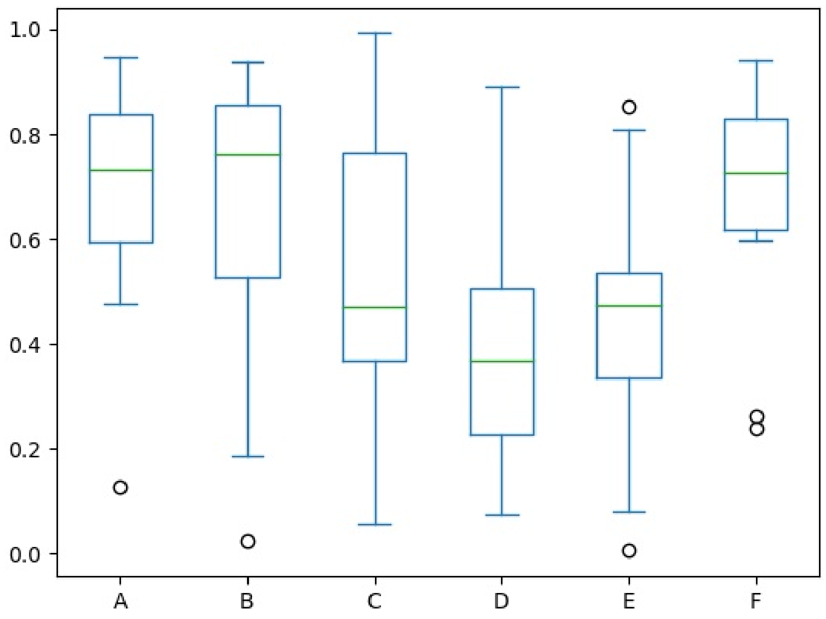
```
In [30]: ds=pd.DataFrame(np.random.rand(10,4),columns=['A','B','C','D'])
         ds.plot.box()
```

```
Out[30]: <AxesSubplot:>
```



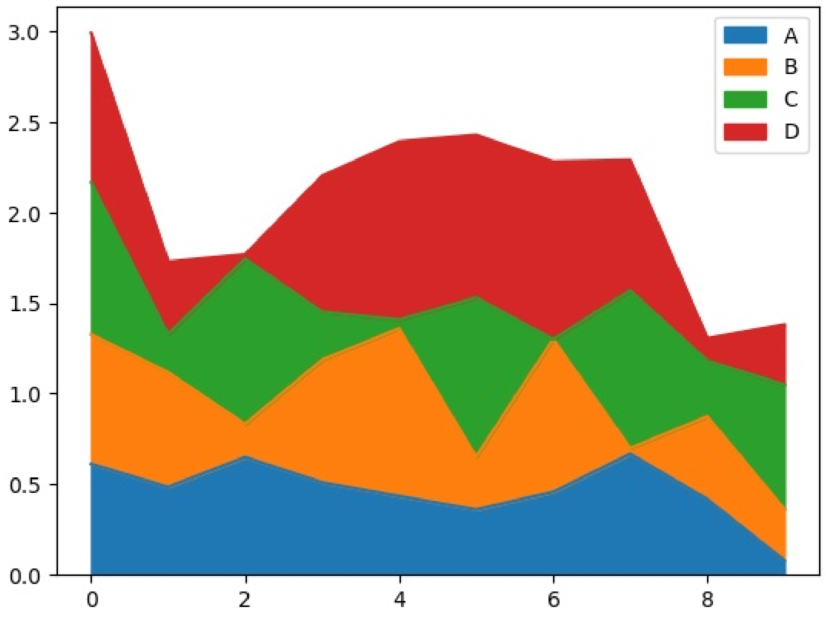
```
In [32]: ds=pd.DataFrame(np.random.rand(10,6),columns=['A','B','C','D','E','F'])
         ds.plot.box()
```

```
Out[32]: <AxesSubplot:>
```



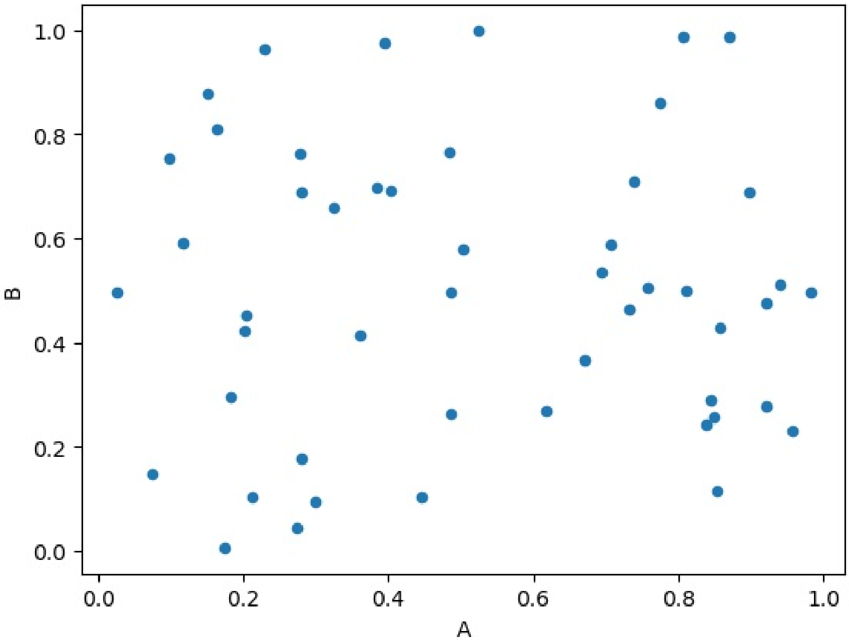
In [34]:
```
ds=pd.DataFrame(np.random.rand(10,4),columns=['A','B','C','D'])
ds.plot.area()
```

Out[34]:
```
<AxesSubplot:>
```



In [43]:
```
ds=pd.DataFrame(np.random.rand(50,4),columns=['A','B','C','D'])
ds.plot.scatter(x='A',y='B')
```

Out[43]:
```
<AxesSubplot:xlabel='A', ylabel='B'>
```



```
In [44]: ds=pd.read_csv("D:\president_heights.csv")
```

```
In [45]: ds
```

Out[45]:

	order	name	height(cm)
0	1	George Washington	189
1	2	John Adams	170
2	3	Thomas Jefferson	189
3	4	James Madison	163
4	5	James Monroe	183
5	6	John Quincy Adams	171
6	7	Andrew Jackson	185
7	8	Martin Van Buren	168
8	9	William Henry Harrison	173
9	10	John Tyler	183
10	11	James K. Polk	173
11	12	Zachary Taylor	173
12	13	Millard Fillmore	175
13	14	Franklin Pierce	178
14	15	James Buchanan	183
15	16	Abraham Lincoln	193
16	17	Andrew Johnson	178
17	18	Ulysses S. Grant	173
18	19	Rutherford B. Hayes	174
19	20	James A. Garfield	183
20	21	Chester A. Arthur	183
21	23	Benjamin Harrison	168
22	25	William McKinley	170
23	26	Theodore Roosevelt	178
24	27	William Howard Taft	182
25	28	Woodrow Wilson	180
26	29	Warren G. Harding	183
27	30	Calvin Coolidge	178
28	31	Herbert Hoover	182
29	32	Franklin D. Roosevelt	188
30	33	Harry S. Truman	175
31	34	Dwight D. Eisenhower	179
32	35	John F. Kennedy	183
33	36	Lyndon B. Johnson	193
34	37	Richard Nixon	182
35	38	Gerald Ford	183
36	39	Jimmy Carter	177
37	40	Ronald Reagan	185
38	41	George H. W. Bush	188
39	42	Bill Clinton	188
40	43	George W. Bush	182
41	44	Barack Obama	185

In [1]:

```
ds.plot.scatter(order='10',height(cm)='')
```

```
  File "C:\Users\Nitesh\AppData\Local\Temp\ipykernel_8736\1880364312.py", line 1
    ds.plot.scatter(order='10',height(cm)='')
                               ^
SyntaxError: expression cannot contain assignment, perhaps you meant "=="?
```

In [5]:

```
import numpy as np
```

In [6]:

```
import pandas as pd
```

In [7]:

```
data=[1,2,3,4,5]
```

In [8]:

```
data
```

Out[8]:
```
[1, 2, 3, 4, 5]
```

In [9]:
```
df=pd.DataFrame(data)
```

In [10]:
```
df
```

Out[10]:

	0
0	1
1	2
2	3
3	4
4	5

In [11]:
```
df[0]
```

Out[11]:
```
0    1
1    2
2    3
3    4
4    5
Name: 0, dtype: int64
```

In [13]:
```
df[0][2]
```

Out[13]:
```
3
```

In [16]:
```
data1=['Arun',94],['Nihanth',55],['Goutham',62],['Charan',88],['Arjun',44]
df=pd.DataFrame(data1)
```

In [17]:
```
df
```

Out[17]:

	0	1
0	Arun	94
1	Nihanth	55
2	Goutham	62
3	Charan	88
4	Arjun	44

In [18]:
```
df.iloc[2]
```

Out[18]:
```
0    Goutham
1         62
Name: 2, dtype: object
```

In [24]:
```
df[0:][2:3]
```

Out[24]:

	0	1
2	Goutham	62

In [27]:
```
data1=['Arun',94],['Nihanth',55],['Goutham',62],['Charan',88],['Arjun',44]
df=pd.DataFrame(data1,columns=['Name','Age'])
```

In [28]:
```
df
```

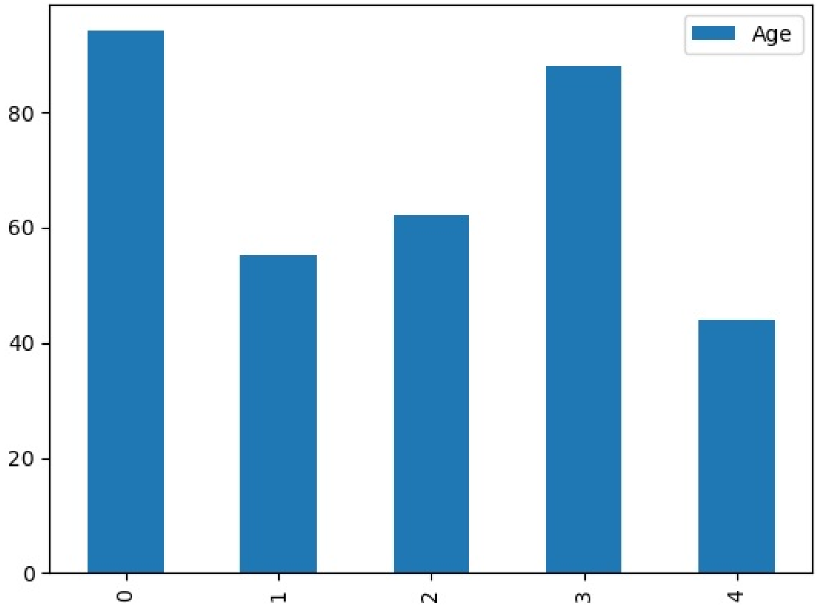
Out[28]:

	Name	Age
0	Arun	94
1	Nihanth	55
2	Goutham	62
3	Charan	88
4	Arjun	44

In [29]:
```
import matplotlib.pyplot as plt
```

In [30]:
```
df.plot.bar()
```

Out[30]:
```
<AxesSubplot:>
```

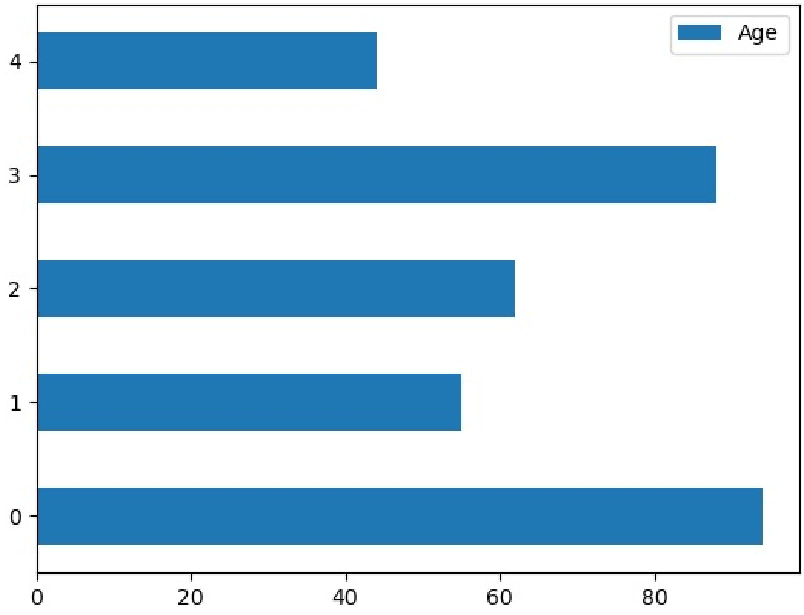


In [31]:

```
df.plot.barh()
```

Out[31]:

```
<AxesSubplot:>
```



In [36]:

```
data2={'Name':['Arun','Goutham','Nihanth','Charan','Arjun'],
       'Age':[65,44,23,45,28],
       'Dep':['Cse','Ai','Csbs','It','Mech']}
df=pd.DataFrame(data2,index=['First','Second','Third','Fourth','Fifth'])
```

In [37]:

```
df
```

Out[37]:

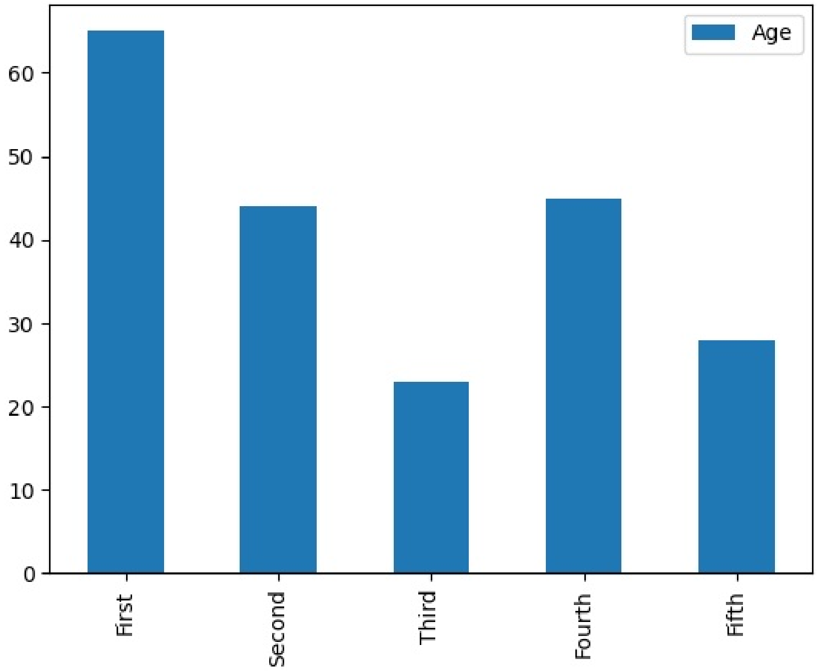
	Name	Age	Dep
First	Arun	65	Cse
Second	Goutham	44	Ai
Third	Nihanth	23	Csbs
Fourth	Charan	45	It
Fifth	Arjun	28	Mech

In [38]:

```
df.plot.bar()
```

Out[38]:

```
<AxesSubplot:>
```



```
In [ ]:
```

Loading [MathJax]/jax/output/CommonHTML/fonts/TeX/fontdata.js