In [ ]:
```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import ruleset
```

In [ ]:
```
df=pd.read_csv("people.txt",delimiter=" ")
df
```

Out[ ]:

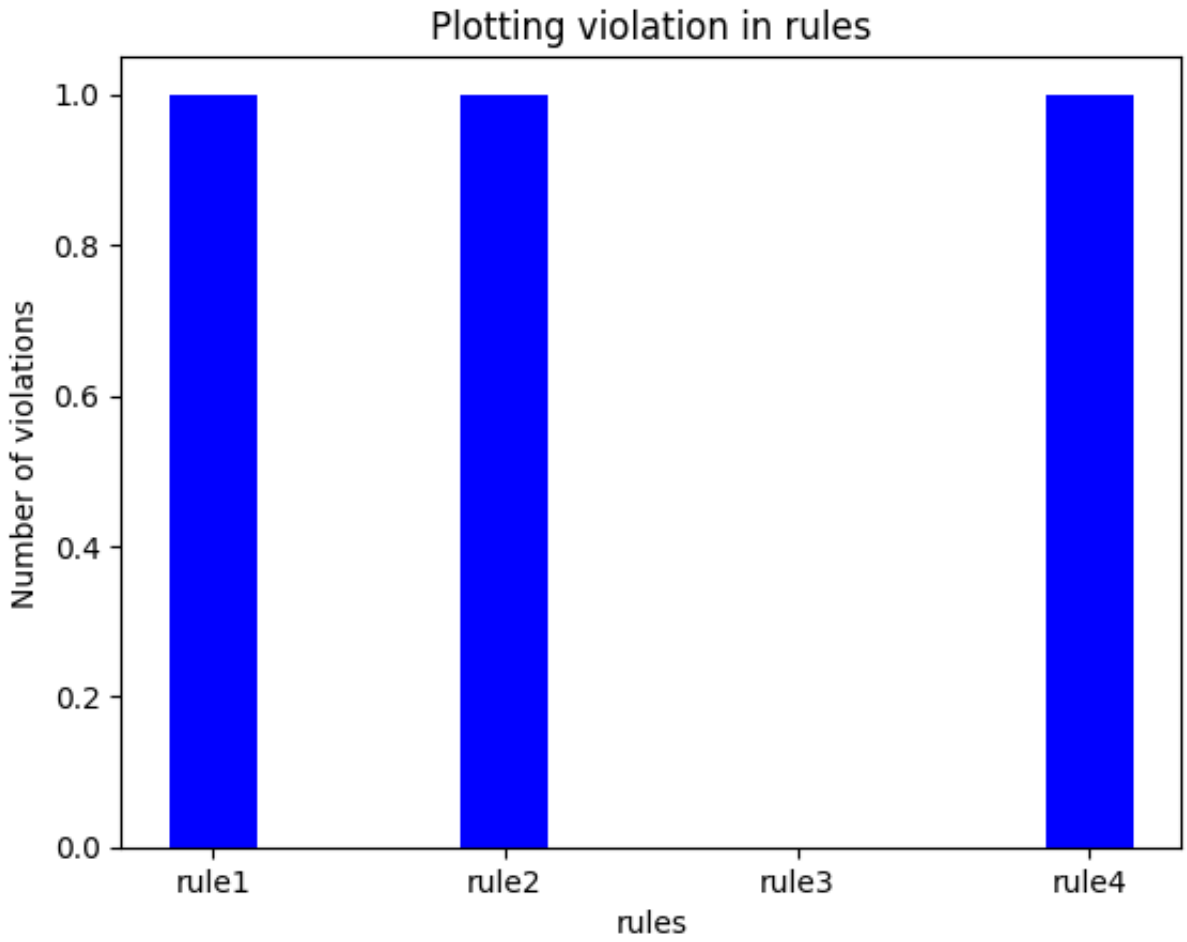
	Age	agegroup	height	status	yearsmarried
0	21	adult	6.0	single	-1
1	2	child	3	married	0
2	18	adult	5.7	married	20
3	221	elderly	5	widowed	2
4	34	child	7	married	3

In [ ]:
```
rules = []
rules.append(ruleset.age_check)
rules.append(ruleset.age_check2)
rules.append(ruleset.status_check)
rules.append(ruleset.agegroup_check)
```

In [ ]:
```
violations = []
rule = list(map(lambda x: "rule"+str(x), range(1,len(rules)+1)))
for i in range(len(rules)):
    violation,desc = rules[i](df)
    print(f"{rule[i]}: {desc}\nviolations:{violation}")
    violations.append(violation)
```

```
rule1: Checking if age is in range 0-150
violations:1
rule2: Checking if age is greater than years married
violations:1
rule3: Checking if status contains values only from single, married,widowed
violations:0
rule4: Checking if age group lies correctly according to age
violations:1
```

In [ ]:
```
fig = plt.figure()
fig.patch.set_facecolor('white')
ax = fig.add_subplot()
ax.bar(rule,violations,0.3,color = 'blue')
plt.ylabel("Number of violations")
plt.xlabel("rules")
plt.title("Plotting violation in rules")
plt.show()
```


Plotting violation in rules
Number of violations
1.0
0.8
0.6
0.4
0.2
0.0
rule1
rule2
rule3
rule4
rules

In [ ]:

In [ ]: