1. Using gapminder Dataset find India's average performance in the following features: "lifeExp", "pop", "gdpPercap"

    Program:

    ```python
    import numpy as np
    import pandas as pd
    from gapminder import gapminder

    df = gapminder.copy()
    india = df.loc[df['country'] == 'India']

    print("'''India 1952-2007 Data'''")
    print("Life Expectancy: {:.3f}".format(india['lifeExp'].mean()))
    print("Population: {:.0f}".format(india['pop'].mean()))
    print("GDP per capita: {:.6f}".format(india['gdpPercap'].mean()))
    ```

    Output:

    ```
    '''India 1952-2007 Data'''
    Life Expectancy: 53.166
    Population: 701130740
    GDP per capita: 1057.296307
    ```

2. Find the entire world's average performance in the above features.

    Program:

    ```python
    import numpy as np
    import pandas as pd
    from gapminder import gapminder

    df = gapminder.copy()
    print("'''World 1952-2007 Data'''")
    print("Life Expectancy: {:.3f}".format(df['lifeExp'].mean()))
    print("Population: {:.0f}".format(df['pop'].mean()))
    print("GDP per capita: {:.6f}".format(df['gdpPercap'].mean()))
    ```

    Output:

    ```
    '''World 1952-2007 Data'''
    Life Expectancy: 59.474
    Population: 29601212
    GDP per capita: 7215.327081
    ```

3. Create different datasets consisting of its member countries in its grouping.

    Program: BRICS

    ```python
    import numpy as np
    import pandas as pd
    from gapminder import gapminder

    df = gapminder.copy()
    india = df.loc[df['country'] == 'India']
    brics = df.loc[df['country'].isin(['Brazil', 'China', 'India', 'South Africa'])]
    ```

```
india_lex = india['lifeExp'].mean()
india_pop = india['pop'].mean()
india_gdp = india['gdpPercap'].mean()

brics_lex = brics['lifeExp'].mean()
brics_pop = brics['pop'].mean()
brics_gdp = brics['gdpPercap'].mean()

print("'''BRICS 1952-2007 Data'''")
print("Life Expectancy: {:.3f}".format(brics_lex))
print("Population: {:.0f}".format(brics_pop))
print("GDP per capita: {:.6f}".format(brics_gdp))

print("\n'''Difference between BRICS and India 1952-2007 Data'''")
print("Life Expectancy: {:.3f}".format(brics_lex - india_lex))
print("Population: {:.0f}".format(brics_pop - india_pop))
print("GDP per capita: {:.6f}".format(brics_gdp - india_gdp))
```

Output:

```
'''BRICS 1952-2007 Data'''
Life Expectancy: 57.796
Population: 452882818
GDP per capita: 3905.587932

'''Difference between BRICS and India 1952-2007 Data'''
Life Expectancy: 4.630
Population: -248247922
GDP per capita: 2848.291625
```

Program: SAARC

```
import numpy as np
import pandas as pd
from gapminder import gapminder

df = gapminder.copy()
india = df.loc[df['country'] == 'India']
saarc = df.loc[df['country'].isin(['Afghanistan', 'Bangladesh', 'India', 'Nepal', 'Pakistan'
    , 'Sri Lanka'])]

india_lex = india['lifeExp'].mean()
india_pop = india['pop'].mean()
india_gdp = india['gdpPercap'].mean()

saarc_lex = saarc['lifeExp'].mean()
saarc_pop = saarc['pop'].mean()
saarc_gdp = saarc['gdpPercap'].mean()

print("'''SAARC 1952-2007 Data'''")
print("Life Expectancy: {:.3f}".format(saarc['lifeExp'].mean()))
print("Population: {:.0f}".format(saarc['pop'].mean()))
print("GDP per capita: {:.6f}".format(saarc['gdpPercap'].mean()))

print("\n'''Difference between SAARC and India 1952-2007 Data'''")
print("Life Expectancy: {:.3f}".format(saarc_lex - india_lex))
print("Population: {:.0f}".format(saarc_pop - india_pop))
print("GDP per capita: {:.6f}".format(saarc_gdp - india_gdp))
```

Output:

```
'''SAARC 1952–2007 Data'''
Life Expectancy: 51.812
Population: 155415135
GDP per capita: 1125.710059

'''Difference between SAARC and India 1952–2007 Data'''
Life Expectancy: -1.354
Population: -545715604
GDP per capita: 68.413752
```

Program: BIMSTEC

```python
import numpy as np
import pandas as pd
from gapminder import gapminder

df = gapminder.copy()
india = df.loc[df['country'] == 'India']
bimstec = df.loc[df['country'].isin(['Bangladesh', 'India', 'Myanmar', 'Nepal', 'Sri Lanka',
    'Thailand'])]

india_lex = india['lifeExp'].mean()
india_pop = india['pop'].mean()
india_gdp = india['gdpPercap'].mean()

bimstec_lex = bimstec['lifeExp'].mean()
bimstec_pop = bimstec['pop'].mean()
bimstec_gdp = bimstec['gdpPercap'].mean()

print("'''BIMSTEC 1952–2007 Data'''")
print("Life Expectancy: {:.3f}".format(bimstec['lifeExp'].mean()))
print("Population: {:.0f}".format(bimstec['pop'].mean()))
print("GDP per capita: {:.6f}".format(bimstec['gdpPercap'].mean()))

print("\n'''Difference between BIMSTEC and India 1952–2007 Data'''")
print("Life Expectancy: {:.3f}".format(bimstec_lex - india_lex))
print("Population: {:.0f}".format(bimstec_pop - india_pop))
print("GDP per capita: {:.6f}".format(bimstec_gdp - india_gdp))
```

Output:

```
'''BIMSTEC 1952–2007 Data'''
Life Expectancy: 55.672
Population: 150229606
GDP per capita: 1332.935812

'''Difference between BIMSTEC and India 1952–2007 Data'''
Life Expectancy: 2.506
Population: -550901134
GDP per capita: 275.639505
```

Program: G4

```python
import numpy as np
import pandas as pd
from gapminder import gapminder

df = gapminder.copy()
india = df.loc[df['country'] == 'India']
g4 = df.loc[df['country'].isin(['Brazil', 'Germany', 'India', 'Japan'])]
```

```python
india_lex = india['lifeExp'].mean()
india_pop = india['pop'].mean()
india_gdp = india['gdpPercap'].mean()

g4_lex = g4['lifeExp'].mean()
g4_pop = g4['pop'].mean()
g4_gdp = g4['gdpPercap'].mean()

print("'''G4 1952-2007 Data'''")
print("Life Expectancy: {:.3f}".format(g4['lifeExp'].mean()))
print("Population: {:.0f}".format(g4['pop'].mean()))
print("GDP per capita: {:.6f}".format(g4['gdpPercap'].mean()))

print("\n'''Difference between G4 and India 1952-2007 Data'''")
print("Life Expectancy: {:.3f}".format(g4_lex - india_lex))
print("Population: {:.0f}".format(g4_pop - india_pop))
print("GDP per capita: {:.6f}".format(g4_gdp - india_gdp))
```

Output:

```
'''G4 1952-2007 Data'''
Life Expectancy: 65.919
Population: 253187179
GDP per capita: 11298.541844

'''Difference between G4 and India 1952-2007 Data'''
Life Expectancy: 12.753
Population: -447943560
GDP per capita: 10241.245537
```