The average fitness score and the most fit chromosome of each generation Is shown below.

I have taken four screenshots. To see them all, just run the code.

The average fitness score for this generation is 100.7 out of 200.0 The most fit chromsome of 0 th generation is [1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 0, 0, 0, 1, 1, 1, 1, 1, 1]The average fitness score for this generation is 117.3 out of 200.0 The most fit chromsome of 1 th generation is [1, 1, 1, 1, 1, 1, 1, 1, 0, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1] The average fitness score for this generation is 132.6 out of 200.0 The most fit chromsome of 2 th generation is [1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 0, 1, 1, 1, 1, 1, 1, 1] The average fitness score for this generation is 146.2 out of 200.0 The average fitness score for this generation is 158.7 out of 200.0 The average fitness score for this generation is 170.5 out of 200.0 The average fitness score for this generation is 180.4 out of 200.0 The average fitness score for this generation is 188.9 out of 200.0 The average fitness score for this generation is 194.6 out of 200.0 The average fitness score for this generation is 200.0 out of 200.0 The average fitness score for this generation is 200.0 out of 200.0 The average fitness score for this generation is 200.0 out of 200.0 The average fitness score for this generation is 200.0 out of 200.0 The average fitness score for this generation is 200.0 out of 200.0 The average fitness score for this generation is 200.0 out of 200.0 The average fitness score for this generation is 200.0 out of 200.0 The average fitness score for this generation is 200.0 out of 200.0 The average fitness score for this generation is 200.0 out of 200.0 The average fitness score for this generation is 200.0 out of 200.0  The average fitness score for this generation is 200.0 out of 200.0 The average fitness score for this generation is 200.0 out of 200.0 The average fitness score for this generation is 200.0 out of 200.0 The average fitness score for this generation is 200.0 out of 200.0 The average fitness score for this generation is 200.0 out of 200.0 The average fitness score for this generation is 200.0 out of 200.0 The average fitness score for this generation is 200.0 out of 200.0 The average fitness score for this generation is 200.0 out of 200.0 The average fitness score for this generation is 200.0 out of 200.0 The average fitness score for this generation is 200.0 out of 200.0 The average fitness score for this generation is 200.0 out of 200.0 The average fitness score for this generation is 200.0 out of 200.0 The average fitness score for this generation is 200.0 out of 200.0 The average fitness score for this generation is 200.0 out of 200.0 The average fitness score for this generation is 200.0 out of 200.0 The average fitness score for this generation is 200.0 out of 200.0 The average fitness score for this generation is 200.0 out of 200.0 The average fitness score for this generation is 200.0 out of 200.0 The average fitness score for this generation is 200.0 out of 200.0 

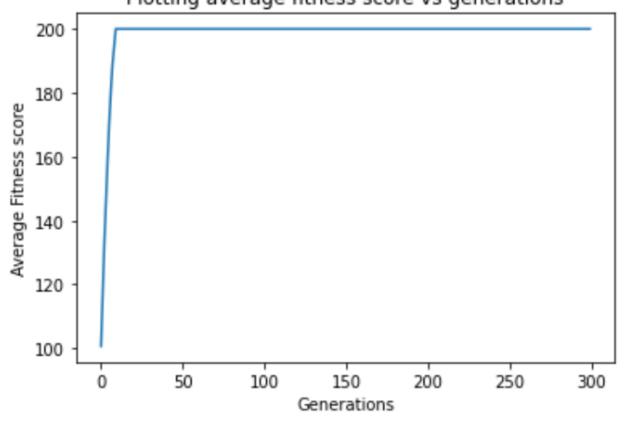
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3s completed at 3:03 PM

The most fit chromosome after 300 iterations is shown below

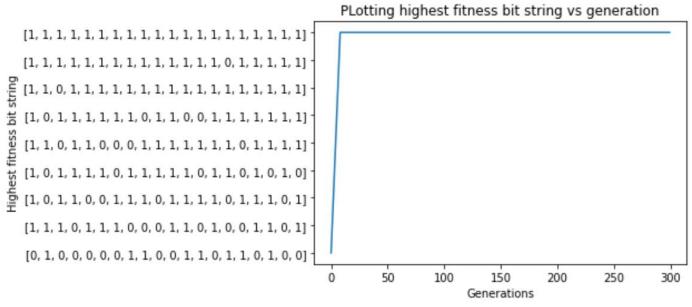
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Plotting average fitness score vs generations
```

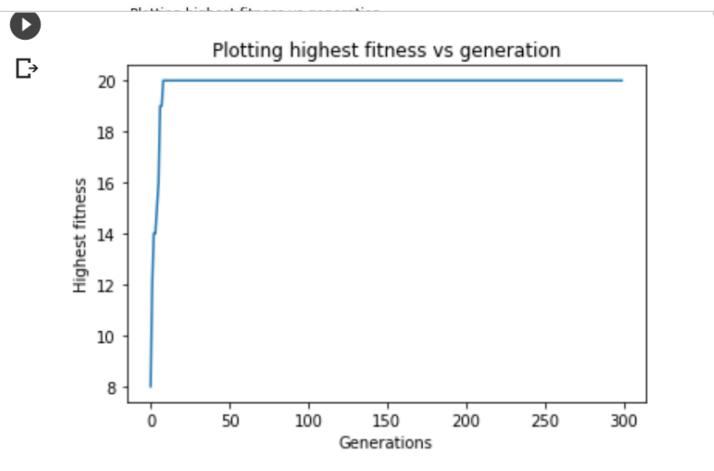
We now plot the various variables across the generations.



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## **Analysis**

- We find that, after a few iterations itself, we reach the optimized code of all 1's.
- The intiial values are nearly half due to the randomization