**README**

- Group members (only one member): -
    1. **Sachit Verma - 01910863**
- Steps to run my code: - **mix run proj1.exs 1 500000**
- Number of worker actors created: - Since each worker handles 20 numbers in my program so the number of workers = (range of numbers / 20)
  So according to the above example the number of workers are (500000 - 1)/20 = 25000
- Size of the work unit of each worker is 20 because the parallelism my code was able to achieve was the highest at 20.
- The result of running **mix run proj1.exs 1 500000** and its running time is as follows: -

```
FinalVampNum $ time mix run proj3_running.exs 1 500000
498550 590 845
489955 545 899
489159 549 891
486720 624 780
475380 570 834
458640 546 840
457600 650 704
456840 540 846
447916 476 941
429664 464 926
428980 482 890
416988 468 891
416650 641 650
414895 491 845
404968 446 908
392566 593 662
386415 465 831
384912 432 891
378450 435 870
378400 473 800
378418 431 878
371893 383 971
369189 381 969
368550 585 630
365638 533 686
362992 392 926
361989 369 981
346968 366 948
341653 533 641
338296 392 863
336960 360 936
336550 530 635
329656 356 926
329346 342 963
326452 524 623
319536 336 951
319059 351 909
315900 351 900
```

```
135828 231 588
135837 351 387
134725 317 425
133245 315 423
132430 323 410
131242 311 422
129775 179 725
129640 140 926
126846 261 486
126027 201 627
125500 251 500
125433 231 543
125460 204 615 246 510
125248 152 824
124483 281 443
123354 231 534
120600 201 600
118440 141 840
117067 167 701
116725 161 725
115672 152 761
110758 158 701
108135 135 801
105750 150 705
105264 204 516
105210 210 501
104260 260 401
102510 201 510
6880 80 86
2187 27 81
1827 21 87
1530 30 51
1435 35 41
1395 15 93
1260 21 60

real    0m4.479s
user    0m12.847s
sys     0m0.763s
```

- The ratio of CPU TIME to REAL TIME = (user + sys)/real
  = (12.847 + 0.763) / 4.479 = 3.0386

- The largest range of numbers my program can handle is from 1 to 5,200,000
- For a single number, my program can find all 5 fangs of 24,959,017,348,650