DIKSHANT GUPTA (UFID- 6840-1523)

LAVISH MEHTA (UFID- 7981-8557)

**STEPS:**

1.1 Unzip the GUPTA_MEHTA.zip file and then open the command prompt.

1.2Enter the mix command to compile and run the project1.exs file along with the two inputs for the range n1 to n2.

2.The number of worker actors in our code=1000

3. The size of work unit of each worker actor is 100. This is because we are running the code over 100000 numbers and since the number of worker actors is 1000, the division of both yields the size of work unit.

4.

```
testingvampire1 $ time mix run project1.exs 100000 200000
Compiling 1 file (.ex)
102510 510 201
104260 401 260
105210 501 210
105264 516 204
105750 705 150
108135 801 135
110758 701 158
115672 761 152
116725 725 161
117067 701 167
118440 840 141
120600 600 201
123354 534 231
124483 443 281
125248 824 152
125433 543 231
125460 510 246 615 204
125500 500 251
126027 627 201
126846 486 261
129640 926 140
129775 725 179
131242 422 311
132430 410 323
```

```
132430 410 323
133245 423 315
134725 425 317
135828 588 231
135837 387 351
136525 635 215
136948 938 146
140350 401 350
145314 414 351
146137 461 317
146952 942 156
150300 501 300
152608 608 251
152685 585 261
153436 431 356
156240 651 240
156289 581 269
156915 951 165
162976 926 176
163944 414 396
172822 782 221
173250 750 231
174370 470 371
175329 759 231
180225 801 225
180297 897 201
182250 810 225
182650 650 281
186624 864 216
190260 906 210
192150 915 210
193257 591 327
193945 491 395
197725 719 275

real    0m1.175s
user    0m2.987s
sys     0m0.228s
```

5. The ratio to CPU time to REAL time is calculated as

(user+sys/real) = (2.987+0.228)/(1.175)= 2.736 sec

6. Largest Vampire Number solved= 939658=986*953.