**Project 2 Part 2 (square with min area)**

Name: Satvik Matta Period: 5

Date: 10/6/2022

Is your lab name l022?(lowercase L followed by digits 022) Yes

Did you comment out the call to part1 method? Yes

Did you create a class for a Point? Yes

Did you create a class for a Line? Yes

List all classes you created in this project: Point, Line, Render

Did you use the precision for the points like in the sample? Yes

Did you test your file on a school computer using jupyterhub/ssh? Yes

Did your file compile and run on school computer (jupyterhub)? Yes

Paste here **2 sets of clear picture/content** of the points.txt, output.txt and output.ppm you created when running 2 times your lab :

* one of the runs should be on the sample provided by Mr. Jurj;

**points.txt:**

(0.18161564989165929,0.49650563066499831) , (0.20331431012909329,0.66115298928800315) , (0.45457319864497819,0.36802270577105012) , (0.86330759605700857,0.82033753471480453)

**output.txt:**

(0.18161564989165929,0.49650563066499831) , (0.20331431012909329,0.66115298928800315) , (0.45457319864497819,0.36802270577105012) , (0.86330759605700857,0.82033753471480453)

(0.44965933148143983,0.35848004700834979) , (0.52122072857609081,0.49745124226642917) , (0.66019192383417025,0.42588984517177814) , (0.58863052673951921,0.25006904561528137) Area = 0.02443402666559755

(0.34174493950384793,0.28328741002475732) , (0.43467909320732451,0.35308200810630175) , (0.36488449512578025,0.44601616180977827) , (0.27195034142230362,0.25247621434617024) Area = 0.01350804284594573

(0.21626596678621329,0.65838060894706685) , (0.50356215373881796,0.59688312473948169) , (0.56505963794640357,0.88417931169208619) , (0.27776345099379895,2.28783087099799687) Area = 0.08632103960136817

(0.11723405021564341,0.61397476973488152) , (0.27298780221724167,0.69933911128708126) , (0.35835214376944141,0.54358535928548291) , (0.20259839176784314,0.17403641768290945) Area = 0.03154630207121598

(0.23229804918860955,0.50597175896598390) , (0.19683240149944251,0.69585764053809318) , (0.38671828307155159,0.73132328822726023) , (0.42218393076071870,0.53481336406915980) Area = 0.03731446018642923

(0.26976728773113051,0.54851018465181800) , (0.30404636140174301,0.49040457166165113) , (0.36215197439190999,0.52468364533226364) , (0.32787290072129749,0.60301200155231671) Area = 0.00455131715267833

**output.ppm:**

Diagram, engineering drawing

Description automatically generated

* the other run on a random set of points.txt your part1 generated!! :

**points.txt:**

(0.95316632089818187,0.06107275516776031) , (0.04170515436758528,0.03552225885704265) , (0.84225380599603705,0.77475545777695043) , (0.08860008655516435,0.28569905845713756)

**output.txt:**

(0.95316632089818187,0.06107275516776031) , (0.04170515436758528,0.03552225885704265) , (0.84225380599603705,0.77475545777695043) , (0.08860008655516435,0.28569905845713756)

(1.22698973866517114,0.56619101627174784) , (0.53324894154402291,0.94226626585176843) , (0.15717369196400077,0.24852546873061826) , (0.85091448908514900,-1.40728380782338580) Area = 0.62270888693696091

(0.57376635850201230,0.25831579032267638) , (0.36937779792504333,-0.13482869833419742) , (-0.02376669073183232,0.06955986224277252) , (0.18062186984513662,0.56896218968416801) Area = 0.19633727265600007

(0.90995519470648334,-0.14581913066830499) , (0.66085040658982630,-0.09379148158595063) , (0.71287805567218010,0.15531330653070619) , (0.96198284378883714,-1.08941085214064604) Area = 0.06476007173168122

(0.79541498583035053,0.39335103783397152) , (0.98140670311514866,0.48165184846115672) , (0.89310589248796313,0.66764356574595518) , (0.70711417520316511,0.18758056570237902) Area = 0.04238995205596630

(0.90664331082470473,-0.15270680520805957) , (0.03449760093610579,0.03709077682156817) , (0.22429518296573261,0.90923648671016721) , (1.09644089285433166,-3.28818928079526263) Area = 0.79666126142138149

(0.31769112360766216,0.46727894480849780) , (0.16883746988016138,0.23441000439781789) , (0.40170641029084114,0.08555635067031725) , (0.55056006401834190,0.41357499283577231) Area = 0.07638535363601949

**output.ppm:**

A picture containing text

Description automatically generated