고급 소프트웨어 실습

분반: 2

학번: 20181650

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과제 2. 임의의 개수의 포인트 셋에 대한 Delaunay triangulation 알고리즘을 수도 코드 형태로 작성해 보시오.

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| Incremental Delaunay Triangulation algorithm  fun Delaunay\_Triangulation(list pts[]) return Triangle\_result:  Farpts[3]  Triangle\_result[]  for i in range(3):  p=getFarPoint(pts,Farpts) //make a far point from points we have  put p in Farpts  for pt in pts:  new\_triangle=make\_triangle(pt,Triangle\_list)  for tri in new\_triangle:  neighbor\_tri=neighbor(tri,Triangle\_result)  if not is\_good\_triangluation(tri,neighbor\_tri)  flip(tri,neighbor\_tri)  Triangle\_result.append(tri,neighbor\_tri)  fun getFarPoints(pts, Farpts):  get a point p that is dist(p,pt)>K for all pt in pts  Farpts.append(p)  return p  fun make\_triangle(pt,Triangle\_list):  for t in Triangle\_list:  if pt is included in t:  return t  fun neighbor(tri,Triangle\_result):  for t in Triangle\_list:  if tri is adjacent to t:  return t  fun is\_good\_triangluation(tri,neighbor\_tri):  p=point not included in tri  return isInCircumCircle(tri,p)  fun flip(tri,neighbor\_tri):  rec=rectangle that is combined with tri and neighbor\_tri  divide it another way and store the results in tri, neighbor\_tri |