ABHAYA.Y 18M18CS 001 ADS-Lab 3 Island Problem Pseudo lode: class Island int ptiood, count; Island (int n) 4 0000 for (i=0; icn;it+1 p(1)=1; Lovent = 0; public int find parent (int ic) if (p(12) == 11) ceturn "; return p(x) = find palent(u); public void union (intu, int- y) int root 1 = showing to find parent (1) ID- root y = Mally findparent (y) if (rout i = root y) p {root- 12] = root- y; wunt -public void setlant (int o) wunt = n; public int wunt-() return lount;

ABHAYA.Y 1BM18(300) rum Islands (vector (vector (int) mat) int went-0 111- m= mat. size() int n= nat (0). size (1) billing iso; icm; ittl For lint j=0 j cn j jtt)
if (mat lidgd) (ount-ft) Island is = new Island (mxn); is set wount (ount); for lint 100; (m; itt) & for (int- j=0; jen; j+1) }

f (mat- (i) [j] !! = 0) { 16 (100 dd marting G-DG) 1=01 13. Union (n \* (it's) n\* (il) )); if ( in-1 & matter [iti][] ] = 0) is. union (nx itj, nx (HI) til) if (1)0 f8 mal-[i] (j-1) is. union (n# itj, n\* itj.) if (jen-1 de matér)(j+1)) Bunjon (nx it), nxitjfl); if (1) 0 28 ; >0 El mat (1-1) [j-1) is. union (n \*1'+), n \* (1-1)+j=1 if (izm-1 &l jzn-1 al mak(i+1) (jt)) is union (nxit), nx(iti) titli if (1)0 18 j cn-1 88 mot(j-17 (j+1)) 13. union (nxit), nx (i-V +j+) if (icm-1 &l 1 >0 &l makinstj-1) is union (nxiti), nx (iti) tilly return is count();

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