Код

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1 Кодик

```r
1  minim<-function(gr) {
2    n<-ncol(gr)
3    min<-gr[1,2]
4    ind<-c(1,2)
5    for (i in 1:n) { for (j in 1:n) {
6      if (gr[i,j]<min) {
7        min<-gr[i,j]
8        ind<-c(i,j)}}}
9    return(c(min,ind))}
10
11 level<-function(g,v) {
12   n<-ncol(g)
13   if(v<=n) {
14     h<-g[v,]
15     for (ur in 2:(n-1)) {
16       for (i in 1:n) { if(h[i]==(ur-1)) { for (j in 1:n) {
17         if((h[j]==0)&(g[i,j]==1)&(j!=v)) {h[j]<-(ur)}}}}}} else
   {print('error')}
18   return(h)}
19
20
21 subgraph<- function (gr) {
22   A<-rep(0,ncol(gr))
23   S<-list()
24   b<-1
25   for(i in 1:ncol(gr)){
26     if(A[i]!=1) {
```

```r
        L<-level(gr,i)
        S[[b]]<-i
        for (j in 1:ncol(gr)){
          if (L[j]!=0) {
            S[[b]]<-c(S[[b]],j)}}
        A[S[[b]]]<-1
        b<-b+1}}
   return(S)}

gr<-matrix(Inf,ncol=4,nrow=4)
gr[1,2]<-233
gr[2,1]<-233
gr[1,3]<-32
gr[3,1]<-32
gr[2,3]<-41
gr[3,2]<-41
gr[1,4]<-12
gr[4,1]<-12
gr[2,4]<-5444
gr[4,2]<-5444
gr[3,4]<-87
gr[4,3]<-87
gr

krus<-function(gr) {
  g<-matrix(0,ncol=ncol(gr),nrow=ncol(gr))

  nelz<-matrix(0,ncol=ncol(gr),nrow=ncol(gr))
  k<-minim(gr)[1]
  a<-minim(gr)[2]
  b<-minim(gr)[3]

  s<-subgraph(g)

  while (length(s)>1) {
    if (nelz[a,b]==0) {
      g[a,b]<-1
      g[b,a]<-1
      gr[a,b]<-+Inf
      gr[b,a]<-+Inf
      for (i in 1:ncol(gr)) {
```

```
68      if(g[a,i]==1) {
69         nelz[b,i]<-1
70         nelz[i,b]<-1}
71      if(g[b,i]==1) {
72         nelz[a,i]<-1
73         nelz[i,a]<-1}}}
74   k<-minim(gr)[1]
75   a<-minim(gr)[2]
76   b<-minim(gr)[3]
77   s<-subgraph(g)}
78 return(g)}
79 otv<-krus(gr)
80 otv
```

2   чуточку Эрто й красоты

```
1 letterCloud( demoFreq, word = "R", color='random-light' ,
↪ backgroundColor="black")
2 letterCloud( demoFreq, word = "PEACE", color="white",
↪ backgroundColor="pink")
```