Rešenja drugog kolokvijuma iz Operativnih sistema 2, Novembar 2012.

1. (10 poena)

```
int allocate (unsigned int pid, unsigned int rid) {
   if (pid>=numOfProc || rid>=numOfRes) return -1; // Exception!
   // Is this resource free?
   for (unsigned int i=0; i<numOfProc; i++)
     if (i!=pid && resourceAlloc[i][rid]==-1) {  // The resource is occupied
       resourceAlloc[pid][rid]==1;
       return 0;
     }
   // The resource can be allocated:
   resourceAlloc[pid][rid] = -1;
   return 1;
}

int release (unsigned int pid, unsigned int rid) {
   if (pid>=numOfProc || rid>=numOfRes) return -2; // Exception!
   resourceAlloc[pid][rid] = 0;
   // Find a waiting process:
   for (unsigned int i=0; i<numOfProc; i++)
     if (resourceAlloc[i][rid]==1) {
       resourceAlloc[i][rid]==-1;
       return i;
     }
   return -1;
}
```

2. (10 poena)

```
double soldQuantity () {
   void* storage = mmapfile("log.bin");
   if (storage==0) return -1; // Exception!
   int n = *(int*)storage;
   DailySales* log = (DailySales*)((int*)storage+1);
   double sum = 0.0;
   for (int i=0; i<n; i++)
     sum+=log[i].quantity;
   return sum;
}
```

3. (10 poena)
a)(5) 43, 41, 51, 62, 70, 95, 130
b)(5) 51, 62, 70, 95, 130, 41, 43