

DOMACA ULOHA

tri ulohy posledne okrem bonusu v subore signaly.txt

1.Upravte skript losovac.sh tak aby ulozil svoje PID do /tmp/losovac.PID a v pripade, ze je ukonceny (aj nečakane), musi po sebe tento subor zmazať.

```
#!/bin/bash
```

```
echo "Losovac caka na vyzvu k losovaniu."
```

```
function losuj() {  
    echo -n $(($RANDOM%10+1))  
}
```

```
function cleanup() {  
    rm -f /tmp/losovac.PID  
    exit  
}
```

```
echo $$ > /tmp/losovac.PID
```

```
trap 'cleanup' SIGTERM SIGINT
```

```
trap 'losuj' USR1
```

```
while ;; do  
    sleep infinity &  
    wait  
    kill -9 $!
```

```
wait $! 2> /dev/null
echo " je vylosovane cislo"
done
```

2.Upravte skript vyberac.sh tak aby identifikoval PID losovac.sh podla obsahu /tmp/losovac.PID.

```
#!/bin/bash
```

```
echo
```

```
echo "PID vyberaca je $$"
```

```
if [ -f /tmp/losovac.PID ]; then
```

```
    tmp=$(cat /tmp/losovac.PID)
```

```
    echo "PID losovaca je $tmp"
```

```
else
```

```
    echo "Subor /tmp/losovac.PID nebol najdeny. Spustam losovac.sh."
```

```
    ./losovac.sh &
```

```
    tmp=$!
```

```
    echo $$ > /tmp/losovac.PID
```

```
    echo "PID losovaca je $tmp"
```

```
fi
```

```
trap 'kill -9 $tmp' SIGINT
```

```
while ;; do
```

```
    # skuste zakomentovat nasledujuci sleep a zistite ci program bude losovat rychlejsie
```

```
    sleep 5
```

```
    echo
```

```
    echo "Volam losovaca..."
```

```
    kill -USR1 $tmp
```

```
    sleep 5
```

done

3. Upravte losovac.sh tak, aby vytvoril pomenovanu ruru (named pipe, FIFO) /tmp/losovac.PID a pri posielal losovane cislo do nej. Upravte vyberac.sh tak, ze z pomenovanej rury precita vylosovane cislo. Losovac by mal po sebe ruru opat poupratovat.

losovac.sh

```
#!/bin/bash
```

```
echo "Losovac caka na vyzvu k losovaniu."
```

```
fifo=/tmp/losovac.PID
```

```
mkfifo $fifo
```

```
function losuj() {
```

```
    echo $((RANDOM%10+1)) > $fifo
```

```
}
```

```
function cleanup() {
```

```
    rm -f $fifo
```

```
    exit
```

```
}
```

```
trap 'cleanup' SIGTERM SIGINT
```

```
trap 'losuj' USR1
```

```
while ;; do
```

```
    sleep infinity &
```

```
    wait
```

```
kill -9 $!

wait $! 2> /dev/null

done


vyberac.sh

#!/bin/bash

echo

echo "PID vyberaca je $$"


fifo=/tmp/losovac.PID

if [ ! -p $fifo ]; then

    echo "Named pipe $fifo nebola najdena. Spustam losovac.sh."

    ./losovac.sh &

fi


trap 'kill -9 $(cat /tmp/losovac.PID)' SIGINT


while ;; do

    sleep 5

    echo

    echo "Volam losovaca..."

    kill -USR1 $(cat /tmp/losovac.PID)


    if read line <$fifo; then

        echo "Vylosovane cislo: $line"

    fi


    sleep 5

done
```