```
 1  #! /bin/sh
 2  #
 3  #
 4  # exercise 2a
 5  MASTER=MasterList
 6
 7  # exercise 5a
 8  GENMASTER="no"
 9
10  # exercise 5d
11  DELMASTER="no"
12
13  NAMMASTER="no"
14
15  # exercise 3a
16  TMP=/tmp/$$
17  > $TMP
18
19  # exercise 5b
20  for i in "$@"
21  do
22      case "$i" in
23      -m) NAMMASTER=yes    ;;
24      -g) GENMASTER=yes    ;;
25      # next two lines are for exercise 5e
26      -d) DELMASTER=yes    ;;
27      *)  if [ "$NAMMASTER" = yes ]
28          then
29              MASTER="$i"
30              NAMMASTER=no
31          else
32              echo "Unknown option $i" 1>&2
33              exit 1
34          fi        ;;
35      esac
36  done
37
38  if [ "$NAMMASTER" = yes ]
39  then
40      echo "You gave the -m option but no file name" 1>&2
41      exit 1
```

```
42  fi
43
44  #
45  # sanity check: only one of -d, -g
46  # exercise 5g
47  if [ "$DELMASTER" = 'yes' -a "$GENMASTER" = 'yes' ]
48  then
49          echo "Only one of -d, -g allowed" 1>&2
50          exit 1
51  fi
52
53
54  #
55  # if delete master, do so and exit
56  # exercise 5f
57  if [ "$DELMASTER" = 'yes' ]
58  then
59          if [ -e "$MASTER" ]
60          then
61                  rm "$MASTER"
62                  exit 0
63          else
64                  echo "Master file does not xist; please generate it" 1>&2
65                  exit 1
66          fi
67  fi
68
69  if [ "$GENMASTER"x = yesx ]
70  then
71      if [ -e "$MASTER" ]
72      then
73              echo "$MASTER exists; please delete it" 1>&2
74              exit 1
75      else
76              > "$MASTER"
77      fi
78      #
79      for i in *
80      do
81              if [ ! -f "$i" -o "$i"x = "$MASTER"x ]
82              then
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83                      continue
84              fi
85              echo `ls -sail "$i"` `shasum "$i"` >> "$MASTER"
86      done
87      exit 0
88  fi
89
90  # exercise 3e
91  if [ ! -f "$MASTER" ]
92  then
93      echo "Master file does not exist; please generate it" 1>&2
94      exit 1
95  fi
96
97  for i in *
98  do
99      # exercise 3b
100     if [ "$i" = "$TMP" ]
101     then
102         continue
103     fi
104     # exercise 2c
105     if [ "$i" = "$MASTER" -o ! -f "$i" ]
106     then
107         continue
108     fi
109     # exercise 3c
110     echo `ls -sail "$i"` `shasum "$i"` >> $TMP
111 done
112
113 # exercise 3d, with the modification given in exercise 4
114 echo "Changed files:"
115 diff "$MASTER" "$TMP" | grep '^\(<\|>\)' | awk '{ print $NF }' | sort | uniq
116 # exercise 3f
117 rm $TMP
118 exit 0
119
```