

```
vboxuser@ubuntu: ~/Desktop
vboxuser@ubuntu:~/Desktop$ gcc -o vsf vsfck.c
vboxuser@ubuntu:~/Desktop$ ./vsf vsfs.img
VSFS Consistency Checker
=====
File system image: vsfs.img
Mode: Check only

=== Superblock Validation ===
Magic number is valid (0xD340)
Block size is valid (4096)
Total blocks is valid (64)
Inode bitmap block is valid (1)
Data bitmap block is valid (2)
Inode table start block is valid (3)
First data block is valid (8)
Inode size is valid (256)
Inode count is valid (80)

=== Data Bitmap Validation ===
Checking blocks referenced by inodes...
Validating data bitmap against block references...

=== Inode Bitmap Validation ===
Error: Inode 72 is invalid but marked used in inode bitmap
Error: Inode 73 is invalid but marked used in inode bitmap
Error: Inode 74 is invalid but marked used in inode bitmap

=== Duplicate Block Check ===

=== Bad Block Check ===

=== Consistency Check Summary ===
Superblock: Valid
Data bitmap: Valid
Inode bitmap: Errors found
Duplicate blocks: None found
Bad blocks: None found

Overall file system status: ERRORS DETECTED
vboxuser@ubuntu:~/Desktop$
```

```
vboxuser@ubuntu:~/Desktop$ gcc -o fil file1.c
vboxuser@ubuntu:~/Desktop$ ./fil vsfs.img
Starting VSFS Consistency Check...
Fixing inode bitmap: inode 72 should not be marked used
Fixing inode bitmap: inode 73 should not be marked used
Fixing inode bitmap: inode 74 should not be marked used
VSFS Check Completed. Corrections written to image.
vboxuser@ubuntu:~/Desktop$ ./fil vsfs.img
Starting VSFS Consistency Check...
VSFS Check Completed. Corrections written to image.
vboxuser@ubuntu:~/Desktop$
```

```
vboxuser@ubuntu:~/Desktop$ ./vsf vsfs.img
VSFS Consistency Checker
=====
File system image: vsfs.img
Mode: Check only

=== Superblock Validation ===
Magic number is valid (0xD340)
Block size is valid (4096)
Total blocks is valid (64)
Inode bitmap block is valid (1)
Data bitmap block is valid (2)
Inode table start block is valid (3)
First data block is valid (8)
Inode size is valid (256)
Inode count is valid (80)

=== Data Bitmap Validation ===
Checking blocks referenced by inodes...
Validating data bitmap against block references...

=== Inode Bitmap Validation ===

=== Duplicate Block Check ===

=== Bad Block Check ===

=== Consistency Check Summary ===
Superblock: Valid
Data bitmap: Valid
Inode bitmap: Valid
Duplicate blocks: None found
Bad blocks: None found

Overall file system status: CONSISTENT
```