

```
1.  /**
2.   * recover.c
3.   *
4.   * Computer Science 50
5.   * Problem Set 4
6.   *
7.   * Recovers JPEGs from a forensic image.
8.   */
9.
10. #include <stdint.h>
11. #include <stdio.h>
12. #include <stdlib.h>
13.
14. #define JPEG_SIGNATURE1 0xe0ffd8ff
15. #define JPEG_SIGNATURE2 0xe1ffd8ff
16.
17. int main(int argc, char* argv[])
18. {
19.     if (argc != 1)
20.     {
21.         printf("Usage: Solo un argumento\n");
22.         return 1;
23.     }
24.
25.     FILE* file = fopen("card.raw", "r");
26.
27.     if (file == NULL)
28.     {
29.         printf("No se pudo abrir.\n");
30.         return 1;
31.     }
32.
33.     int num = 0;
34.     uint8_t buffer[512];
35.
36.     FILE* out = NULL;
37.
38.     while (fread(buffer, 512, 1, file) != 0)
39.     {
40.         if (buffer[0] == 0xff && buffer[1] == 0xd8 && buffer[2] == 0xff
41.             && (buffer[3] == 0xe0 || buffer[3] == 0xe1))
42.         {
43.             if (out != NULL)
44.             {
45.                 fclose(out);
46.             }
47.
48.             char filename[8];
```

```
49.         sprintf(filename, "%03d.jpg", num);
50.
51.         out = fopen(filename, "w");
52.         num = num + 1;
53.
54.         if (out == NULL)
55.         {
56.             printf("Could not create file.\n");
57.             return 1;
58.         }
59.     }
60.
61.     if (out != NULL)
62.     {
63.         fwrite(buffer, sizeof(buffer), 1, out);
64.     }
65.
66.     }
67.
68.     if (out != NULL)
69.     {
70.         fclose(out);
71.     }
72.
73.     fclose(file);
74.
75.     return 0;
76. }
```