A common method to store records in a file is the random-access file, where all the file is viewed as a byte stream and all the records has the same size. Structure is useful for representing records in a random-access file. However, random-access file cannot be read by human, so the presentation of data stored in a random-access file should be carefully considered. Your goal is to write a program to show the data stored in a random-access file named as **"test_input_ReadRAF.txt"**.

Requirement: Read the binary input from file stream rather than the standard input stream, and use array of structure to store the data.

Input

The input has 500 records and ends with an EOF marker. Each record is a structure containing the following fields: First Name, Last Name, Nick Name, Age, Gender, University, and Department. The fields First Name, Last Name, and Nick Name are character arrays of size 20. The field age is an 32-bit unsigned integer. The field gender is a character. The fields University, and Department are character arrays of size 50.

Output

Output the records according to the format shown in the sample output. Two consecutive fields are separated by three spaces, except the fields university and department, where they are separated by 20 spaces. Each dashed line is composed of 112 dashes. All the field values are aligned left except Age (aligned right), and Gender (aligned to the character 'n' in the filed name).

Sample Input

No visible sample input.

Sample Output

```
First Name   Last Name   Nick Name   Age   Gender   University                          Department
----------------------------------------------------------------------------------------------------------------
Benedict     Bryant      Scarlet      22    F        Oxford                              Mathematics
Elizabeth    Buss        Bishop       19    F        Stanford                            Psychology
Benedict     Bryant      Princess     23    F        UC Berkley                          Biology
Alice        Evan        Mamba        34    M        Yale                                Mechanical Engineering
----------------------------------------------------------------------------------------------------------------
```