**4.n** User Interface Design

(Introduction)

**4.n.1** Main Page

The Main page is shown in Figure N, and the interface design would be divided into two parts: Basic Operation for Each Page and Pages Design.

1. Essential Operation for Each Page

* Setting Button

The setting button is under the module, above the choice menu, left side of the help button. After clicking it, a drawer will pop up from the left side of the screen. There are three list items, and they are "About Us": present the software's basic information, "Contact Us": link it to see the open-source code, and "Erase All Current: clear all history and reset the study progress.

* Help Button

The help button is under the module, above the choice menu, on the setting button's right side. It is to help users get familiar with the components of the main page. By clicking it, an explanation box will show up, and it will explain the module, buttons, and section menu on each page.

* Section Menu

The section menu is at the bottom of the main page. It contains three buttons: tutorial, procedure, and correctness. The buttons give entries for users to get to each section's main page.

* Module

Each page provides several modules. The tutorial page contains a swap, a loop, and a terminology module, while the procedure page provides six sorting algorithm modules. Additionally, the correctness page contains tutorial and proof modules. Each module frame consists of a button for a click, a study progress line, and last visited highlighting.

* Study Progress Line

The study progress line relates to each module. It used to show how much progress that users have learned. Once users choose one module and learn one section of the module, 1/3 of the progress line will be painted. Until users view all parts of the module, the progress line will be fully painted.

* Last Visited Highlighting

Each module attaches the last visited highlighting. If a highlighted color surrounds a module, it means that this module is the most recent interview.

1. Pages Design

This part mainly shows the layout of each page, including theme color and structure design.

2.1 Tutorial Page

The tutorial page is shown in Fig. n

2.2 Procedure Page

The procedure page is shown in Fig. n

2.3 Correctness Page

The correctness page is shown in Fig. n