AST21105

Object-Oriented Programming and Design

Group Project

Group 35

Group member and Student ID

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Programme of Study

Information Systems Development

Tutor's Name:

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Program Description:

to write a program to handle the scout team's camping equipment loan. The system tracks camping equipment loans. The system checks the level of the user, and depending on the level of the user, the system determines whether such a loan is allowed. The system also tracks the loan history. For the convenience of the user, the system allows the administrator to insert text files in a specified format for bulk data insertion. Data insertion is the insertion of a batch of users and the insertion of a batch of camping equipment. The system can use the user ID and password as admin and admin to save the default administrator ID.

Roles of User for a Scout Members and Scouters:

The reconnaissance team has several parts, but the loan system only works in three parts. Scouts (part), venture scouts, rover scouts. There are several scouts in each section. Each member has attributed such as ID, name, part, date of birth and address.

Function of Default administrator:

- Insert a list file containing bulk users and bulk camp equipment. These two files have their own fixed format.

- View loan records, including loan date, camping equipment item ID, project name, borrower's name, return date, status (loans, returns returns).

- Display a list of camping equipment (by category: tents, lanterns, stoves)

- Update the device status

Generate a .txt file containing all updated data, such as loan records and equipment list.
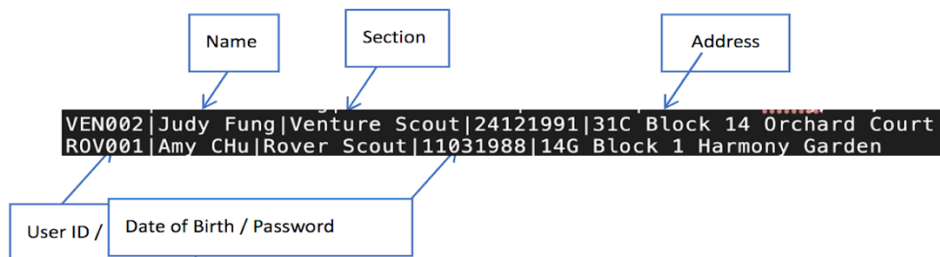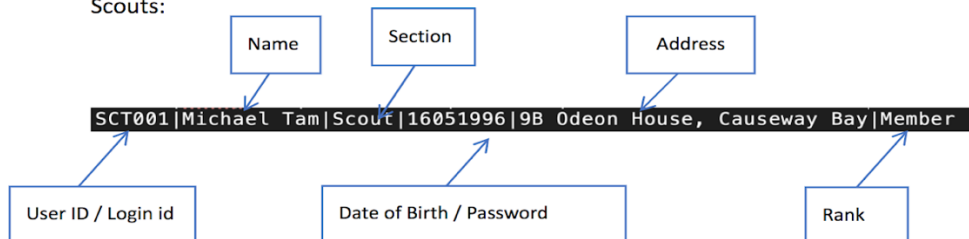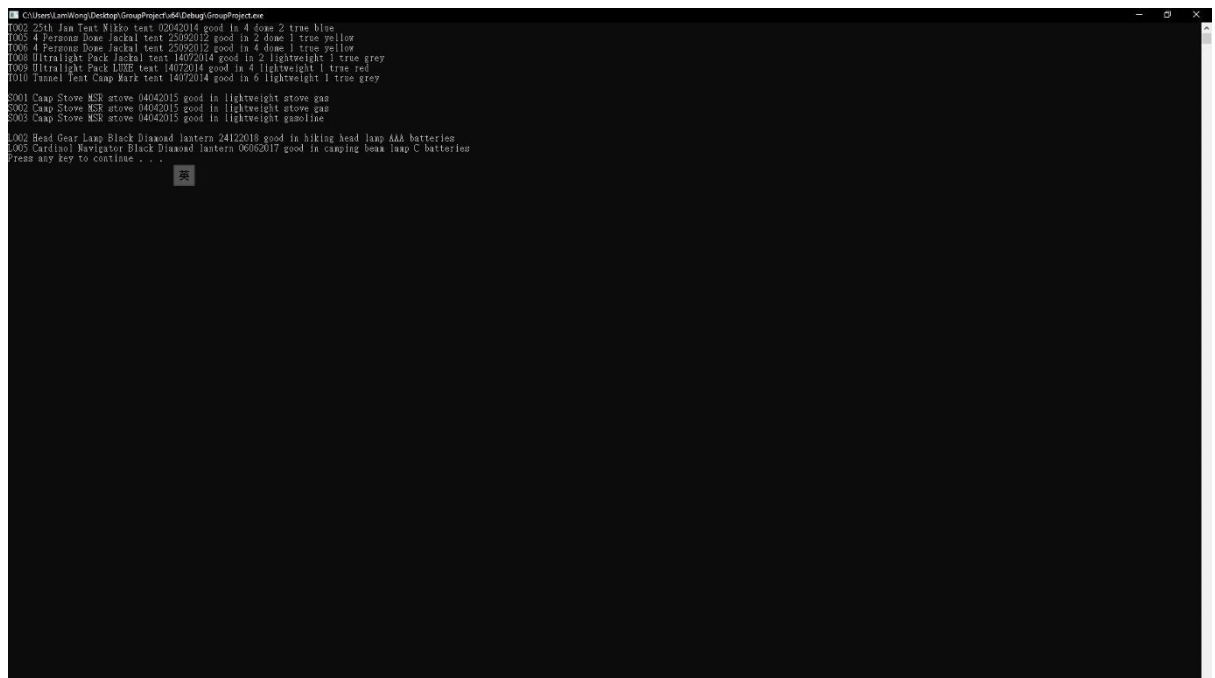
Figure 1Rover scouts and scouts data explanation

Four Main Function of menu page:

You will see that menu after login.

- 1.Display equipment

-

- 2.Loan equipment

-

- 3.Return equipment back to the store

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- 4.Check the record

-
-
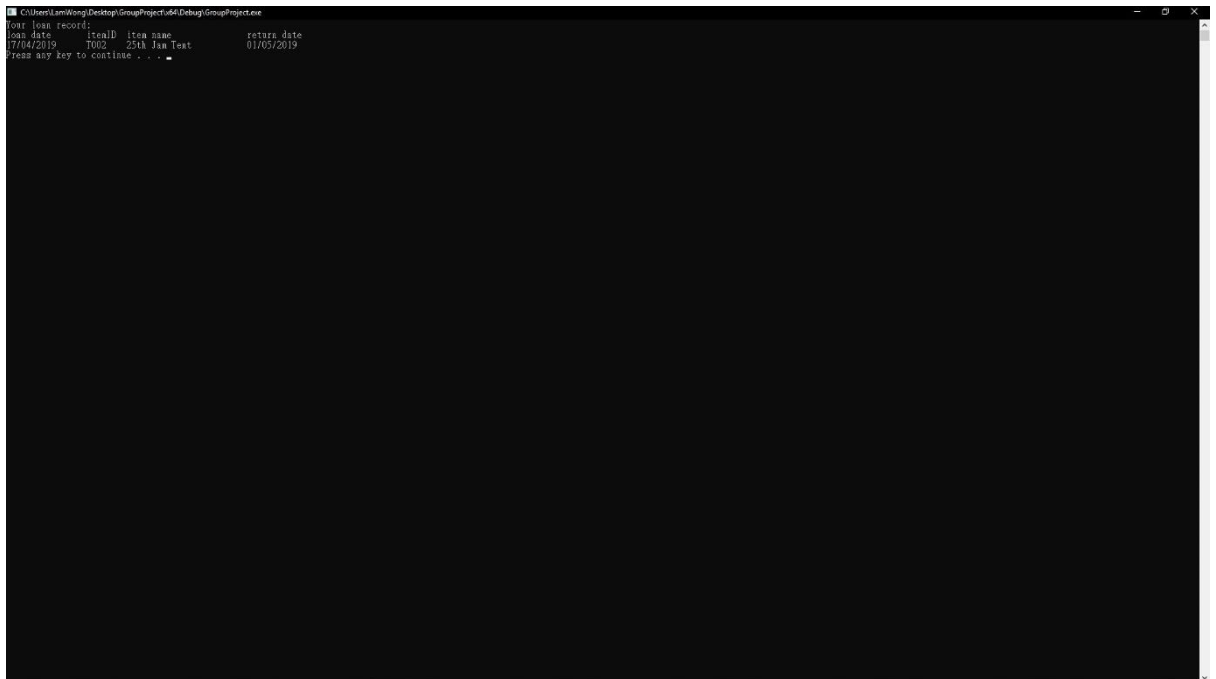
For example:
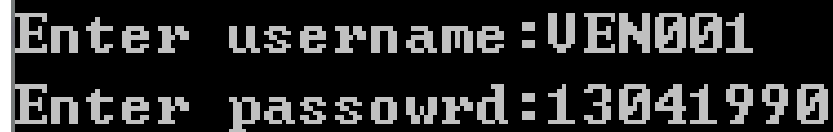
Press 1 for Display the equipment, you will see all the equipment on the system.

How to Login to our system:

```
Enter username:VEN001
Enter passowrd:13041990
```

1. You have to enter your username

2. You enter your password

3. You will see the menu page

   You can find your Username and Password on the User.TXT file.

Three major Camp Equipment:

1. Tent

2. Stoves

3. Lantern

Each device has a product ID, item name, product name, item type (amount, furnace, light). Number of days purchased (DDMM YY YY), status (good, damaged, under repair or Different types of devices are more advanced. Only certain types of attributes will be described in detail.

Detail of the Three Major Equipment:

A tent: is a camping device that can be further described in these attributes: ten size as (2, 4, 6, 8, 10 and 16), tent type (lightweight, family, wall, tunnel or dome), number of doors (2,4,6) which for the exit and entry the tent.

Lantern: has the following specific attributes: Lantern Size (Hike or Camping), lampType (Headlight, Desk lamp, LED and Beam light) and

fuelType (AA Battery, AAA Battery) C Battery, D battery, stove gas, screw gas).
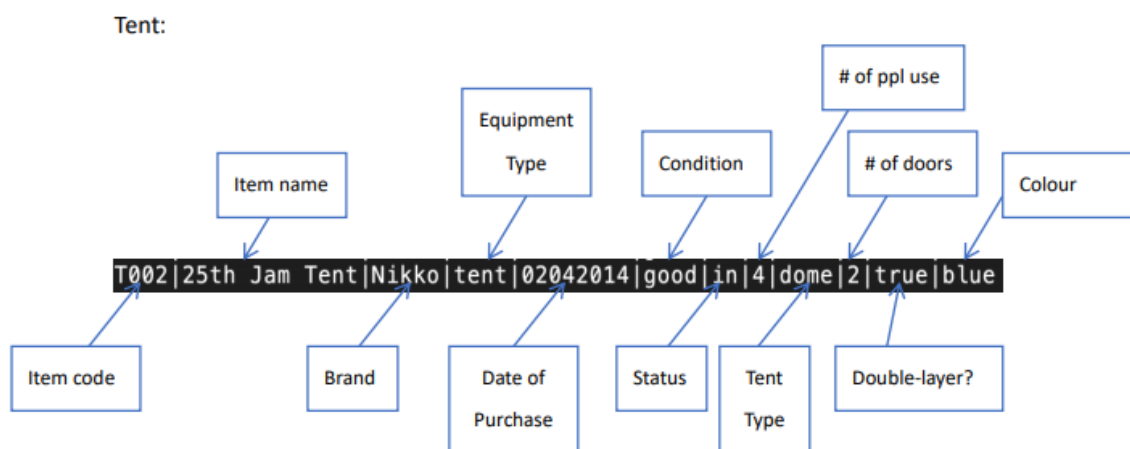
AST 21105-Group Project Version 3 (February 11, 2019) 3 Stoves The stove has the following specific characteristics. Stove type (super lightweight, light weight, bench) and fuel type (cooking gas, screw gas, wax)
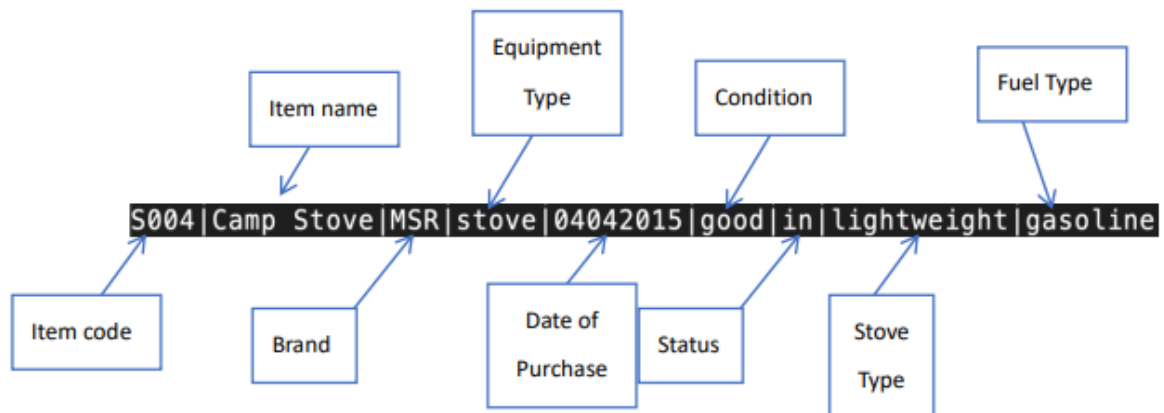
How to read the table of Camp Equipment File

All supplies are placed in text files. The first letter of the product code is Type of equipment: T for tents, S for stoves, L for lanterns. Different format Various equipment.
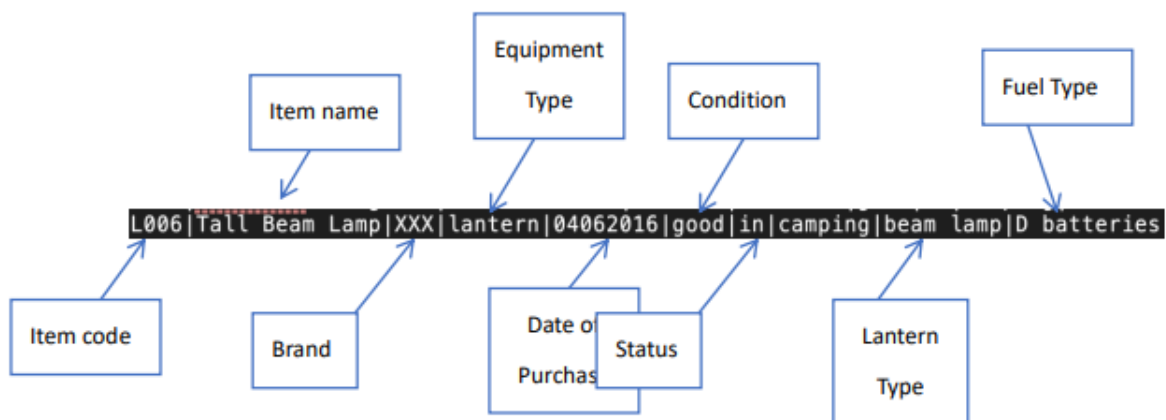
Tent:


```
T002|25th Jam Tent|Nikko|tent|02042014|good|in|4|dome|2|true|blue
```

Labels: Item name, Equipment Type, Condition, # of ppl use, # of doors, Colour, Item code, Brand, Date of Purchase, Status, Tent Type, Double-layer?

Stove:


```
S004|Camp Stove|MSR|stove|04042015|good|in|lightweight|gasoline
```

- Item code
- Item name
- Brand
- Equipment Type
- Date of Purchase
- Condition
- Status
- Stove Type
- Fuel Type

Lantern:


```
L006|Tall Beam Lamp|XXX|lantern|04062016|good|in|camping|beam lamp|D batteries
```

- Item code
- Item name
- Brand
- Equipment Type
- Date of Purchase
- Condition
- Status
- Lantern Type
- Fuel Type

Using an Administrator account

- You can insert a list file containing bulk users and batch camps

    Equipment These two files have their own fixed format and are discussed

    later.

Admin function list

- When you are using administrator account, The display includes the date of the loan, the item ID of the camping equipment, and the project name. Borrower's name, date of return, status (loan. If equipment was returned, return).

Admin function-view own record function

- Display all of camping equipment (by category: tents, lanterns, stoves).
- Update the status of the device.

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- Admin function-display all equipment

- Generate a .txt file containing all updated data, such as loan records and equipment list.

- Function 2 is open a new txt file

Aims Of the program

- When a user logs in to the system, the system displays a menu. We have the following of View a list of available camping gear by category.
- When the user selects this option, the system displays a list of available devices by category.
- Only the "good" conditions and items not borrowed will be displayed in the list.
- View user loan history - If the user borrows a device, borrow the device list and the user is displayed.
- Submenu for providing device loans (only for users without device loans)
- How to borrow money, there are items that can not be made to the user, this option is not available.

- Systems that the user does not have an item provides a menu, Users get items from the scout group by funds, licenses, and user ranks.
- The default product date for all device loans is 14 days.