

# CIS204 – 82377 : UNIX Scripting & Utilities

Lecturer – Cary Short

**Project #6 – Due Close of Business (17:00 – 5 pm) 12 Dec 2017**

**+++ THIS PROJECT IS 10% OF YOUR GRADE +++**

The head manager of the US Department of Redundancy Department wants to automate the process of validating users ordering equipment using the NSN\_DATA file and determining if the user is authorized to generate an order over a specific dollar amount, and revising the order to the authorized limit if necessary. The shell then will output Item SKU, Item Price, Short Description, Quantity Ordered, and Total Cost.

There are a number of files available for use in building this shell. There is the NSN\_DATA file, which has all of the items that can be ordered along with their SKU, price, long & short descriptions, and a line number. There is a fields key called, NSN\_fields, and there is a name\_dept\_psswd.txt file that contains the valid user names, their passwords, and authorization level.

You will have to build a shell that reads an array (First & Last names) and validates that the name is contained in the name\_dept\_psswd.txt file. You will then have to ensure a valid password (they get three attempts) entry.

You will ask the user to enter a single character to use to search for a matching first character in the short description field of the NSN\_DATA file. The character should be entered in upper case alphabetic character, but you have to be able to convert a lower case character entered by the user into uppercase. Also there are some items whose short description starts with a number, they need to be accepted also. However, every other entered character, non alphanumeric character, should not be accepted (exit the shell if entered).

A list of potential matches should be generated and displayed to the user. The user then will select an item by entering its line number at a prompt. That line number will be used to extract the relevant information from the NSN\_DATA file. The shell will then prompt the user to enter the desired quantity to purchase.

If the user has a Y in the AUTH field of the name\_dept\_psswd.txt they will be allowed to purchase anything, in any quantity. If they have an N in the AUTH field of name\_dept\_psswd.txt then the shell will check to see if the item's price is beyond their \$5,000 purchasing limit. If the item's price isn't beyond their purchasing authority, it will then check the total price of the quantity ordered (quantity ordered \* price) and reduce the quantity until the total is at or under the \$5,000 purchasing limit.

Below are glimpses into how I would handle this:

**Name & password:**

```
Department of Redundancy Department - Procurement Process
Please enter your name: Bob Jones
You entered: Bob Jones
This is your first attempt
Please enter your password:
Password read successfully.
Bad password entered
This is your second attempt
Please enter your password:
Password read successfully.
Thanks
Please enter a letter or number to search first character of NSN_DATA:
```

**Item selection:**

```
Item:31
Description:Abrasion Film Adhesion Promoter

Item:32
Description:Abrasive Disk, Silicon Carbine (PSA)

Item:33
Description:Abrasive Aluminum Oxide Disk
:

Please enter the number of the item you request: 33
```

**Item display:**

```
SKU: 5345-01-521-4185
Price: $234.32
Short Description: Abrasive Aluminum Oxide Disk
Full Description: "Grit - 80. Abrasive disk is designed for
environmentally friendly working conditions providing ""dust free""
vacuum sanding and extraction. Designed to be used with Clayton
Abrasives, ""DustMaster Supreme"" orbital sander. Used for metal working.
"
```

**Modification of quantity based on spending restriction:**

```
Please enter quantity required: 289
4920.72
You ordered 21 - Abrasive Aluminum Oxide Disk - at $234.32 per unit.
Your total charge is, $4920.72
```