**Code:**

import java.util.Scanner;

class Main {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

char purchaseChoice;

char dialogueChoice;

int silenced22Sold = 0;

int tenMMSold = 0;

int leverActionShotgunSold = 0;

int carbineSold = 0;

int minigunSold = 0;

int gehennaSold = 0;

int estherSold = 0;

int capsSpent = 0;

int userCaps = 33600;

System.out.println("Welcome, Sir or Madam. Do you wish to purchase something?");

System.out.println();

do {

System.out.println(" [1] Show me what you have for sale.");

System.out.println(" [2] What is this place?");

System.out.println(" [3] That's some impressive weaponry. Where did it all come from?");

System.out.println(" [4] How did you get inside there?");

System.out.println(" [5] Goodbye.");

dialogueChoice = scanner.next().charAt(0);

switch(dialogueChoice) {

case '1':

System.out.println("I am ready to process our transaction.");

do {

System.out.println();

System.out.println();

System.out.println("[1] Silenced .22 Pistol: 80 caps");

System.out.println("[2] 10mm Pistol: 750 caps");

System.out.println("[3] Lever-action Shotgun: 2000 caps");

System.out.println("[4] Assault Carbine: 3950 caps");

System.out.println("[5] Minigun: 5000 caps");

System.out.println("[6] Gehenna (GRA): 12000 caps");

System.out.println("[7] Esther (GRA): 18000 caps");

System.out.println("[8] View Inventory");

System.out.println("[9] Exit Store");

purchaseChoice = scanner.next().charAt(0);

System.out.println();

switch(purchaseChoice)

{

case '1':

if (userCaps >= 80) {

System.out.println("You purchased a Silenced .22 Pistol for 80 caps.");

silenced22Sold++;

capsSpent = capsSpent + 80;

userCaps = userCaps - 80;

System.out.println("Caps remaining: " + userCaps);

}

else {

System.out.println("You do not have enough caps to make this purchase.");

}

break;

case '2':

if (userCaps >= 750) {

System.out.println("You purchased a 10mm Pistol for 750 caps.");

tenMMSold++;

capsSpent = capsSpent + 750;

userCaps = userCaps - 750;

System.out.println("Caps remaining: " + userCaps);

}

else {

System.out.println("You do not have enough caps to make this purchase.");

}

break;

case '3':

if (userCaps >= 2000) {

System.out.println("You purchased a Lever-action Shotgun for 2000 caps.");

leverActionShotgunSold++;

capsSpent = capsSpent + 2000;

userCaps = userCaps - 2000;

System.out.println("Caps remaining: " + userCaps);

}

else {

System.out.println("You do not have enough caps to make this purchase.");

}

break;

case '4':

if (userCaps >= 3950) {

System.out.println("You purchased a Assault Carbine for 3950 caps.");

carbineSold++;

capsSpent = capsSpent + 3950;

userCaps = userCaps - 3950;

System.out.println("Caps remaining: " + userCaps);

}

else {

System.out.println("You do not have enough caps to make this purchase.");

}

break;

case '5':

if (userCaps >= 5000) {

System.out.println("You purchased a Minigun for 5000 caps.");

minigunSold++;

capsSpent = capsSpent + 5000;

userCaps = userCaps - 5000;

System.out.println("Caps remaining: " + userCaps);

}

else {

System.out.println("You do not have enough caps to make this purchase.");

}

break;

case '6':

if (gehennaSold < 1 && userCaps >= 12000) {

System.out.println("You purchased Gehenna (GRA) for 12000 caps.");

gehennaSold++;

capsSpent = capsSpent + 12000;

userCaps = userCaps - 12000;

System.out.println("Caps remaining: " + userCaps);

} else if (gehennaSold >= 1) {

System.out.println("The Gun Runners only stocks a single copy of this weapon.");

}

else {

System.out.println("You do not have enough caps to make this purchase.");

}

break;

case '7':

if (estherSold < 1 && userCaps >= 18000) {

System.out.println("You purchased Esther (GRA) for 18000 caps.");

estherSold++;

capsSpent = capsSpent + 18000;

userCaps = userCaps - 18000;

System.out.println("Caps remaining: " + userCaps);

} else if (estherSold >= 1) {

System.out.println("The Gun Runners only stocks a single copy of this weapon.");

}

else {

System.out.println("You do not have enough caps to make this purchase.");

}

break;

case '8':

System.out.println("Inventory:");

System.out.println();

System.out.println("Silenced .22 Pistol: x" + silenced22Sold);

System.out.println("10mm Pistol: x" + tenMMSold);

System.out.println("Lever-action Shotgun: x" + leverActionShotgunSold);

System.out.println("Assault Carbine: x" + carbineSold);

System.out.println("Minigun: x" + minigunSold);

System.out.println("Gehenna (GRA): x" + gehennaSold);

System.out.println("Esther (GRA): x" + estherSold);

System.out.println();

System.out.println("Total caps spent: " + capsSpent);

System.out.println("Caps remaining: " + userCaps);

break;

case '9':

System.out.println();

break;

default:

System.out.println("Please select a valid option.");

}

} while (purchaseChoice != '9');

break;

case '2':

System.out.println("This is the New Vegas branch of the Gun Runners, supplying the wasteland with only the finest armaments since 2155.");

System.out.println();

break;

case '3':

System.out.println("All Gun Runner merchandise is constructed on-site.");

System.out.println();

break;

case '4':

System.out.println("This kiosk was specially constructed around me to deter theft and assault.");

System.out.println();

break;

case '5':

System.out.println("Come back and see us again soon.");

System.out.println();

break;

default:

System.out.println("Please select a valid dialogue option.");

}

} while (dialogueChoice != '5');

}

}

**Explanation:**

**Note:** Due to the length of the program (175+ lines) this explanation will summarise each section, rather than the typical line-by-line analysis.

– Lines #6 to #16 define the variables associated with the menu options, namely selecting options and managing player inventory.

– Line #19 begins the (all-encompassing) for-while loop. The entirety of the code within will repeat until ‘dialogueChoice’ is set to 5 (on Line #175), exiting the menu and the program.

– Line #27 begins the switch case (a) for the dialogue menu.

– Line #28 is case ‘1’, by far the largest case, used to access the shop menu and purchase weapons.

– Line #30 begins the for-while loop within case ‘1’, used to repeat the shop menu after each interaction. The code within will repeat until ‘purchaseChoice’ is set to 9 (on Line #154), closing the shop menu and returning to the dialogue menu.

– Line #44 begins the switch case (b) for the shop menu. From here, the user can purchase weapons, view their inventory, and exit the shop menu to return to the dialogue menu. Conditional statements are used to check if the user has enough caps to make a purchase and if the vendor has a weapon in stock. The int variables defined earlier are updated with each purchase, tracking caps spent, caps remaining, and weapons purchased.

– Lines #156 to #172 are the remaining cases (2 to 5) for the dialogue menu switch case switch case (a).