Computer Programming I — Homework Assignment **#**11

**Problem:** Design a DintaiFung Shopping System

**Function:**

1. Log in: Input email address and password.

① Shopping

② Update Cart: include checkout (create a text file order.txt).

1. Register: Add a new record into the binary file Accounts.dat.

**Requirements:**

1. Each function (include the main function) contains at most 70 instructions.

2. Arrays and global variables, except foods and price, are not allowed.

The format of the binary file Accounts.dat is as follows:

char email[ 40 ]; // used as the account number

char password[ 20 ];

char name[ 12 ];

char address[ 80 ];

char phone[ 12 ];

int Cart[ 14 ]; // Cart[i] is the quantity of food #i in the shopping cart

Sample screen dialog **#**1

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| Welcome to DintaiFung Shopping Mall!  1 - Registration  2 - Login  3 - End  Enter your choice (1~3): 2  Email address (0 to end): 999  Password: 999  Invalid account number or password. Please try again.  Email address (0 to end): 0  1 - Registration  2 - Login  3 - End  Enter your choice (1~3): 1  Email address (Account number): 999  Password: 999  Name: 999  Shipping address: 999  Contact phone number: 999  Registration Completed!  1 - Registration  2 - Login  3 - End  Enter your choice (1~3): 1  Email address (Account number): 999  You are already a member!  1 - Registration  2 - Login  3 - End  Enter your choice (1~3): 2  Email address (0 to end): 999  Password: 999  1. Pork XiaoLongBao (12) 220  2. Steamed Vegetable and Ground Pork Dumplings (8) 176  3. Steamed Shrimp and Pork Dumplings (8) 216  4. Steamed Fish Dumplings (8) 200  5. Steamed Vegetarian Mushroom Dumplings (8) 200  6. Steamed Shrimp and Pork Shao Mai (12) 432  7. Pork Buns (5) 225  8. Vegetable and Ground Pork Buns (5) 225  9. Red Bean Buns (5) 200  10. Sesame Buns (5) 200  11. Taro Buns (5) 225  12. Vegetarian Mushroom Buns (5) 250  13. Golden Lava Buns (5) 225  Enter your choice (0 to logout): 1  Enter the quantity: 2  Your Shopping Cart Contents:  Code Item Price Quantity Subtotal  1 Pork XiaoLongBao (12) 220 2 440  Total Cost: 440  1. Continue Shopping  2. Update Cart  3. Check  Enter your choice (1~3): 1  1. Pork XiaoLongBao (12) 220  2. Steamed Vegetable and Ground Pork Dumplings (8) 176  3. Steamed Shrimp and Pork Dumplings (8) 216  4. Steamed Fish Dumplings (8) 200  5. Steamed Vegetarian Mushroom Dumplings (8) 200  6. Steamed Shrimp and Pork Shao Mai (12) 432  7. Pork Buns (5) 225  8. Vegetable and Ground Pork Buns (5) 225  9. Red Bean Buns (5) 200  10. Sesame Buns (5) 200  11. Taro Buns (5) 225  12. Vegetarian Mushroom Buns (5) 250  13. Golden Lava Buns (5) 225  14. View your shopping cart  Enter your choice (0 to logout): 14  Your Shopping Cart Contents:  Code Item Price Quantity Subtotal  1 Pork XiaoLongBao (12) 220 2 440  Total Cost: 440  1. Continue Shopping  2. Update Cart  3. Check  Enter your choice (1~3): 1  1. Pork XiaoLongBao (12) 220  2. Steamed Vegetable and Ground Pork Dumplings (8) 176  3. Steamed Shrimp and Pork Dumplings (8) 216  4. Steamed Fish Dumplings (8) 200  5. Steamed Vegetarian Mushroom Dumplings (8) 200  6. Steamed Shrimp and Pork Shao Mai (12) 432  7. Pork Buns (5) 225  8. Vegetable and Ground Pork Buns (5) 225  9. Red Bean Buns (5) 200  10. Sesame Buns (5) 200  11. Taro Buns (5) 225  12. Vegetarian Mushroom Buns (5) 250  13. Golden Lava Buns (5) 225  14. View your shopping cart  Enter your choice (0 to logout): 8  Enter the quantity: 3  Your Shopping Cart Contents:  Code Item Price Quantity Subtotal  1 Pork XiaoLongBao (12) 220 2 440  8 Vegetable and Ground Pork Buns (5) 225 3 675  Total Cost: 1115  1. Continue Shopping  2. Update Cart  3. Check  Enter your choice (1~3): 1  1. Pork XiaoLongBao (12) 220  2. Steamed Vegetable and Ground Pork Dumplings (8) 176  3. Steamed Shrimp and Pork Dumplings (8) 216  4. Steamed Fish Dumplings (8) 200  5. Steamed Vegetarian Mushroom Dumplings (8) 200  6. Steamed Shrimp and Pork Shao Mai (12) 432  7. Pork Buns (5) 225  8. Vegetable and Ground Pork Buns (5) 225  9. Red Bean Buns (5) 200  10. Sesame Buns (5) 200  11. Taro Buns (5) 225  12. Vegetarian Mushroom Buns (5) 250  13. Golden Lava Buns (5) 225  14. View your shopping cart  Enter your choice (0 to logout): 8  Enter the quantity: 2  Your Shopping Cart Contents:  Code Item Price Quantity Subtotal  1 Pork XiaoLongBao (12) 220 2 440  8 Vegetable and Ground Pork Buns (5) 225 5 1125  Total Cost: 1565  1. Continue Shopping  2. Update Cart  3. Check  Enter your choice (1~3): 1  1. Pork XiaoLongBao (12) 220  2. Steamed Vegetable and Ground Pork Dumplings (8) 176  3. Steamed Shrimp and Pork Dumplings (8) 216  4. Steamed Fish Dumplings (8) 200  5. Steamed Vegetarian Mushroom Dumplings (8) 200  6. Steamed Shrimp and Pork Shao Mai (12) 432  7. Pork Buns (5) 225  8. Vegetable and Ground Pork Buns (5) 225  9. Red Bean Buns (5) 200  10. Sesame Buns (5) 200  11. Taro Buns (5) 225  12. Vegetarian Mushroom Buns (5) 250  13. Golden Lava Buns (5) 225  14. View your shopping cart  Enter your choice (0 to logout): 3  Enter the quantity: 1  Your Shopping Cart Contents:  Code Item Price Quantity Subtotal  1 Pork XiaoLongBao (12) 220 2 440  3 Steamed Shrimp and Pork Dumplings (8) 216 1 216  8 Vegetable and Ground Pork Buns (5) 225 5 1125  Total Cost: 1781  1. Continue Shopping  2. Update Cart  3. Check  Enter your choice (1~3): 2  Enter the product code: 2  Enter the product code: 8  Enter the quantity: 2  Your Shopping Cart Contents:  Code Item Price Quantity Subtotal  1 Pork XiaoLongBao (12) 220 2 440  3 Steamed Shrimp and Pork Dumplings (8) 216 1 216  8 Vegetable and Ground Pork Buns (5) 225 2 450  Total Cost: 1106  1. Continue Shopping  2. Update Cart  3. Check  Enter your choice (1~3): 1  1. Pork XiaoLongBao (12) 220  2. Steamed Vegetable and Ground Pork Dumplings (8) 176  3. Steamed Shrimp and Pork Dumplings (8) 216  4. Steamed Fish Dumplings (8) 200  5. Steamed Vegetarian Mushroom Dumplings (8) 200  6. Steamed Shrimp and Pork Shao Mai (12) 432  7. Pork Buns (5) 225  8. Vegetable and Ground Pork Buns (5) 225  9. Red Bean Buns (5) 200  10. Sesame Buns (5) 200  11. Taro Buns (5) 225  12. Vegetarian Mushroom Buns (5) 250  13. Golden Lava Buns (5) 225  14. View your shopping cart  Enter your choice (0 to logout): 0  1 - Registration  2 - Login  3 - End  Enter your choice (1~3): 3  Thank you! Goodbye!  請按任意鍵繼續 . . . |

Sample screen dialog **#**2:

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| Welcome to DintaiFung Shopping Mall!  1 - Registration  2 - Login  3 - End  Enter your choice (1~3): 2  Email address (0 to end): 999  Password: 999  1. Pork XiaoLongBao (12) 220  2. Steamed Vegetable and Ground Pork Dumplings (8) 176  3. Steamed Shrimp and Pork Dumplings (8) 216  4. Steamed Fish Dumplings (8) 200  5. Steamed Vegetarian Mushroom Dumplings (8) 200  6. Steamed Shrimp and Pork Shao Mai (12) 432  7. Pork Buns (5) 225  8. Vegetable and Ground Pork Buns (5) 225  9. Red Bean Buns (5) 200  10. Sesame Buns (5) 200  11. Taro Buns (5) 225  12. Vegetarian Mushroom Buns (5) 250  13. Golden Lava Buns (5) 225  14. View your shopping cart  Enter your choice (0 to logout): 14  Your Shopping Cart Contents:  Code Item Price Quantity Subtotal  1 Pork XiaoLongBao (12) 220 2 440  3 Steamed Shrimp and Pork Dumplings (8) 216 1 216  8 Vegetable and Ground Pork Buns (5) 225 2 450  Total Cost: 1106  1. Continue Shopping  2. Update Cart  3. Check  Enter your choice (1~3): 2  Enter the product code: 1  Enter the quantity: 0  Your Shopping Cart Contents:  Code Item Price Quantity Subtotal  3 Steamed Shrimp and Pork Dumplings (8) 216 1 216  8 Vegetable and Ground Pork Buns (5) 225 2 450  Total Cost: 666  1. Continue Shopping  2. Update Cart  3. Check  Enter your choice (1~3): 1  1. Pork XiaoLongBao (12) 220  2. Steamed Vegetable and Ground Pork Dumplings (8) 176  3. Steamed Shrimp and Pork Dumplings (8) 216  4. Steamed Fish Dumplings (8) 200  5. Steamed Vegetarian Mushroom Dumplings (8) 200  6. Steamed Shrimp and Pork Shao Mai (12) 432  7. Pork Buns (5) 225  8. Vegetable and Ground Pork Buns (5) 225  9. Red Bean Buns (5) 200  10. Sesame Buns (5) 200  11. Taro Buns (5) 225  12. Vegetarian Mushroom Buns (5) 250  13. Golden Lava Buns (5) 225  14. View your shopping cart  Enter your choice (0 to logout): 0  1 - Registration  2 - Login  3 - End  Enter your choice (1~3): 2  Email address (0 to end): 999  Password: 999  1. Pork XiaoLongBao (12) 220  2. Steamed Vegetable and Ground Pork Dumplings (8) 176  3. Steamed Shrimp and Pork Dumplings (8) 216  4. Steamed Fish Dumplings (8) 200  5. Steamed Vegetarian Mushroom Dumplings (8) 200  6. Steamed Shrimp and Pork Shao Mai (12) 432  7. Pork Buns (5) 225  8. Vegetable and Ground Pork Buns (5) 225  9. Red Bean Buns (5) 200  10. Sesame Buns (5) 200  11. Taro Buns (5) 225  12. Vegetarian Mushroom Buns (5) 250  13. Golden Lava Buns (5) 225  14. View your shopping cart  Enter your choice (0 to logout): 14  Your Shopping Cart Contents:  Code Item Price Quantity Subtotal  3 Steamed Shrimp and Pork Dumplings (8) 216 1 216  8 Vegetable and Ground Pork Buns (5) 225 2 450  Total Cost: 666  1. Continue Shopping  2. Update Cart  3. Check  Enter your choice (1~3): 3  Enter arrival dateDate  year: 2019  month: 12  day: 11  Order number: B676891463  Delivery Date: 2019/12/8  Arrival Date: 2019/12/11  Recipient: 999  Contact Phone Number: 999  Shipping address: 999  Shopping details:  Code Item Price Quantity Subtotal  3 Steamed Shrimp and Pork Dumplings (8) 216 1 216  8 Vegetable and Ground Pork Buns (5) 225 2 450  Total Cost: 666  An order has been created.  1 - Registration  2 - Login  3 - End  Enter your choice (1~3): 2  Email address (0 to end): 999  Password: 999  1. Pork XiaoLongBao (12) 220  2. Steamed Vegetable and Ground Pork Dumplings (8) 176  3. Steamed Shrimp and Pork Dumplings (8) 216  4. Steamed Fish Dumplings (8) 200  5. Steamed Vegetarian Mushroom Dumplings (8) 200  6. Steamed Shrimp and Pork Shao Mai (12) 432  7. Pork Buns (5) 225  8. Vegetable and Ground Pork Buns (5) 225  9. Red Bean Buns (5) 200  10. Sesame Buns (5) 200  11. Taro Buns (5) 225  12. Vegetarian Mushroom Buns (5) 250  13. Golden Lava Buns (5) 225  Enter your choice (0 to logout): 0  1 - Registration  2 - Login  3 - End  Enter your choice (1~3): 3  Thank you! Goodbye!  請按任意鍵繼續 . . . |

Sample screen dialog **#**3:

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| Welcome to DintaiFung Shopping Mall!  1 - Registration  2 - Login  3 - End  Enter your choice (1~3): a  Enter your choice (1~3): 0  Enter your choice (1~3): 4  Enter your choice (1~3): 2  Email address (0 to end): 999  Password: 999  1. Pork XiaoLongBao (12) 220  2. Steamed Vegetable and Ground Pork Dumplings (8) 176  3. Steamed Shrimp and Pork Dumplings (8) 216  4. Steamed Fish Dumplings (8) 200  5. Steamed Vegetarian Mushroom Dumplings (8) 200  6. Steamed Shrimp and Pork Shao Mai (12) 432  7. Pork Buns (5) 225  8. Vegetable and Ground Pork Buns (5) 225  9. Red Bean Buns (5) 200  10. Sesame Buns (5) 200  11. Taro Buns (5) 225  12. Vegetarian Mushroom Buns (5) 250  13. Golden Lava Buns (5) 225  Enter your choice (0 to logout): a  Enter your choice (0 to logout): -1  Enter your choice (0 to logout): 14  Enter your choice (0 to logout): 6  Enter the quantity: 2  Your Shopping Cart Contents:  Code Item Price Quantity Subtotal  6 Steamed Shrimp and Pork Shao Mai (12) 432 2 864  Total Cost: 864  1. Continue Shopping  2. Update Cart  3. Check  Enter your choice (1~3): a  Enter your choice (1~3): 0  Enter your choice (1~3): 4  Enter your choice (1~3): 1  1. Pork XiaoLongBao (12) 220  2. Steamed Vegetable and Ground Pork Dumplings (8) 176  3. Steamed Shrimp and Pork Dumplings (8) 216  4. Steamed Fish Dumplings (8) 200  5. Steamed Vegetarian Mushroom Dumplings (8) 200  6. Steamed Shrimp and Pork Shao Mai (12) 432  7. Pork Buns (5) 225  8. Vegetable and Ground Pork Buns (5) 225  9. Red Bean Buns (5) 200  10. Sesame Buns (5) 200  11. Taro Buns (5) 225  12. Vegetarian Mushroom Buns (5) 250  13. Golden Lava Buns (5) 225  14. View your shopping cart  Enter your choice (0 to logout): 8  Enter the quantity: 3  Your Shopping Cart Contents:  Code Item Price Quantity Subtotal  6 Steamed Shrimp and Pork Shao Mai (12) 432 2 864  8 Vegetable and Ground Pork Buns (5) 225 3 675  Total Cost: 1539  1. Continue Shopping  2. Update Cart  3. Check  Enter your choice (1~3): 2  Enter the product code: 5  Enter the product code: 6  Enter the quantity: -1  Enter the quantity: 1  Your Shopping Cart Contents:  Code Item Price Quantity Subtotal  6 Steamed Shrimp and Pork Shao Mai (12) 432 1 432  8 Vegetable and Ground Pork Buns (5) 225 3 675  Total Cost: 1107  1. Continue Shopping  2. Update Cart  3. Check  Enter your choice (1~3): 1  1. Pork XiaoLongBao (12) 220  2. Steamed Vegetable and Ground Pork Dumplings (8) 176  3. Steamed Shrimp and Pork Dumplings (8) 216  4. Steamed Fish Dumplings (8) 200  5. Steamed Vegetarian Mushroom Dumplings (8) 200  6. Steamed Shrimp and Pork Shao Mai (12) 432  7. Pork Buns (5) 225  8. Vegetable and Ground Pork Buns (5) 225  9. Red Bean Buns (5) 200  10. Sesame Buns (5) 200  11. Taro Buns (5) 225  12. Vegetarian Mushroom Buns (5) 250  13. Golden Lava Buns (5) 225  14. View your shopping cart  Enter your choice (0 to logout): 0  1 - Registration  2 - Login  3 - End  Enter your choice (1~3): 3  Thank you! Goodbye!  請按任意鍵繼續 . . . |