

LAB # 6

Problem 01

Write a program to check whether a person can sit on the extreme rides in Joyland. The program should take input, the age and gender of the person.

You can take M for male and F for female (Gender). If the person is male then ask whether his age is above 25 or below 25. If the age is below 25 then print **“You can enjoy the rides”** otherwise print **“Sorry, these rides are not safe for you”**.

Also print his/her age in either case.

If she is a female then ask whether she has health issues or not.

You can take Y for yes and N for no (health issues). If she has health issues then print **“Sorry, these rides are not safe for you”** otherwise print **“You can enjoy the rides”**. Also print her age in either case.

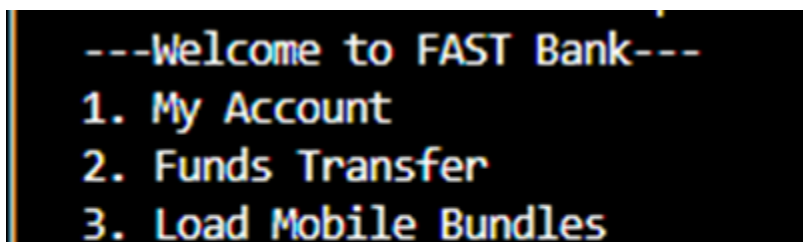
Note: Use if-else and ternary operators.

Problem 02

Write a program that takes input a character from the user and tells whether it is a digit or alphabet. If the user enters any character other than digit or alphabet then the program should give error **“Invalid Input”**. The program should cater for both uppercase and lowercase letters. Note: You are allowed to use switch-case only.

Problem 03

You are required to create a mobile banking application. The application design is as follows: The user is presented with a menu as shown below.



```
---Welcome to FAST Bank---  
1. My Account  
2. Funds Transfer  
3. Load Mobile Bundles
```

Upon selection of the first option the following information is shown to the user. The name and balance of the user is stored within the application.

```
---Welcome to FAST Bank---
1. My Account
2. Funds Transfer
3. Load Mobile Bundles
1
Name Hamza Khan
Balance Rs.25000.2
```

The second option is used for transferring funds to other account holders.

Fund transfer requires the user to enter the name of the beneficiary and select the bank of the beneficiary from a list.

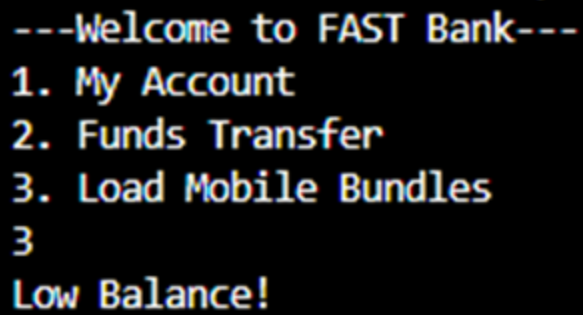
For a transaction to continue, the beneficiary must have an account in FAST Bank, if the condition holds true then the user is prompted to enter the amount to be transferred. The user balance must be greater than 5000 in order to continue the transaction otherwise the user is notified regarding low balance. If the balance is greater than 5000 the amount to be transferred is deducted from the balance and the user is shown the transaction details.

```
---Welcome to FAST Bank---
1. My Account
2. Funds Transfer
3. Load Mobile Bundles
2
Enter beneficiary name:
Gohar
Select Bank of Beneficiary:
a. Alfalah Bank
b. Bank of Punjab
f. FAST Bank
a
Beneficiary does not have FAST Bank account
```

```
---Welcome to FAST Bank---
1. My Account
2. Funds Transfer
3. Load Mobile Bundles
2
Enter beneficiary name:
Gohar
Select Bank of Beneficiary:
a. Alfalah Bank
b. Bank of Punjab
f. FAST Bank
f
Enter transfer amount: 4000
Rs. 4000 have been transferred to Gohar your balance is: 21000.2
```

```
---Welcome to FAST Bank---
1. My Account
2. Funds Transfer
3. Load Mobile Bundles
2
Enter beneficiary name:
Gohar
Select Bank of Beneficiary:
a. Alfalah Bank
b. Bank of Punjab
f. FAST Bank
f
Low balance! Cannot transfer funds
```

The banking application supports bundle renewal of Ufone and Telenor only. For Ufone it offers Super Card Plus and Super Card Gold, whereas for Telenor it offers Monthly Easy Card and Weekly Easy Card. The balance has to be greater than 5000 in order to load any bundle.

A screenshot of a mobile application interface for FAST Bank. The background is black with white and yellow text. The text reads: ---Welcome to FAST Bank---, followed by a numbered list: 1. My Account, 2. Funds Transfer, 3. Load Mobile Bundles, and 3. Below the list, it says Low Balance!.

---Welcome to FAST Bank---
1. My Account
2. Funds Transfer
3. Load Mobile Bundles
3
Low Balance!

The user is presented with menus at each step for loading the bundle.
Following deductions are made from the balance with respect to the card.

Ufone Super Card

Plus: Rs.699 Ufone

Super Card Gold:

Rs.1099

Telenor Monthly

Easy Card: Rs.700

Telenor Weekly Easy

Card: Rs.300

```
---Welcome to FAST Bank---
```

```
1. My Account
```

```
2. Funds Transfer
```

```
3. Load Mobile Bundles
```

```
3
```

```
u. Ufone
```

```
t. Telenor
```

```
u
```

```
1. Super Card Plus
```

```
2. Super Card Gold
```

```
1
```

```
Super Card Plus has been loaded. Your balance is Rs.24301.2
```

```
---Welcome to FAST Bank---
```

```
1. My Account
```

```
2. Funds Transfer
```

```
3. Load Mobile Bundles
```

```
3
```

```
u. Ufone
```

```
t. Telenor
```

```
t
```

```
1. Monthly Easy Card
```

```
2. Weekly Easy Card
```

```
2
```

```
Weekly Easy Card has been loaded. Your balance is Rs.24700.2
```

Note: Use switch-case

and if else

Problem 04

This programming example demonstrates a program that calculates a customer's bill for a local cable company. There are two types of customers: residential and business. There are two rates for calculating a cable bill: one for residential customers and one for business customers. For residential customers, the following rates apply:

- Bill processing fee: \$4.50

- Basic service fee: \$20.50
- Premium channels: \$7.50 per channel.

For business customers, the following rates apply:

- Bill processing fee: \$15.00
- Basic service fee: \$75.00 for first 10 connections, \$5.00 for each additional connection
- Premium channels: \$50.00 per channel for any number of connections

The program should ask the user for an account number (an integer) and a customer code. Assume that R or r stands for a residential customer, and B or b stands for a business customer

The customer's account number, customer code, number of premium channels to which the user subscribes, and, in the case of business customers, number of basic service connections.

Output will be Customer's account number and the billing amount.