Lab 05
PF – BSDS

Note: Kindly do your work, talking, sharing, and discussing is considered cheating (in any case) and strictly discouraged); therefore, be careful. TAs will be there for your help. Wait for TA, if you have any query

Task 1: Write a program to generate a random number 20 to 99, check and print the number in English words. If you do integer division with 10, you will get the left digit of the number. Similarly, if you take remainder of number from 10, you will get right side of the digit. Next, put checks for each separately and print number in English words.

Sample Run:

```
Number 73 in English is seventy-three
Number 30 in English is thirty
Number 68 in English is sixty-eight
```

Task 2: if you are too innocent, (unaware of cards used in card games), read detail of cards, otherwise skip and move to task details:

Card Deck (Pack of Cards) Details

A pack of cards called deck has 52 cards of 4 types. Each type has 13 cards, 4 types given below. Cards have two colors. Two types of cards have red color and two types of cards have black color. In each type 9 out of total 13 cards are numbered from 2-10, where remaining 4 cards have symbols instead of number that is 11 is **J**ack, 12 is **Q**ueen, 13 is **K**ing and A for **A**ce:

Symbol	Type	Color
D	Diamond	Red
H	Heart	Red
S	Spade	Black
C	Club	Black

Symbol	Representation
(A) 1	Ace
2…10	Card Value
(J) 11	Jack
(Q) 12	Queen
(K) 13	King

Task Details

In programs, we will use character to represent type of card (i.e. D for diamond, H for heart, S for Spade and C for Club. Similarly, we use integer to represent number of card.

Generate three cards at random (Because of random card may repeat but assume they are different). Check and show appropriate messages if:

- All cards are in sequence and of same type
- All cards have same number and of same type
- All cards have same type
- All cards have same color
- All cards are in sequence
- Two cards have same type
- Two cards are in sequence
- Otherwise, print value of highest card

Task 3: Input a character. Flip first six bits and print the character. Flip means, if bit is zero then set bit to one, otherwise set bit to zero

Sample Run:

```
Character: T
Character after flip: k
Character: m
Character after flip: R
```