

Question 1

Source code:

```
#include <stdio.h>
#include <string.h>
union info{
char name[30];
int employee_ID;
int date;
int month;
int year;
};
int main()
{
union info employee[5];
int i, j, n;
printf("Enter number of information you want to store: \n");
scanf("%d", &n);
for(i = 0; i < n; i++){
printf("\nEnter the information of 5 employees: #%d \n", (i+1));
printf("Enter Name of the employee: ");
scanf("%s", employee[i].name);
printf("Enter Employee ID: ");
scanf("%d", &employee[i].employee_ID);
printf("Enter Date: ");
scanf("%d", &employee[i].date);
printf("Enter Month: ");
scanf("%d", &employee[i].month);
printf("Enter Year: ");
scanf("%d", &employee[i].year);
}
printf("\n");
printf("DISPLAYING INFORMATION ABOUT EMPLOYEES\n");
for(i = 0; i < n; i++){
printf("\nInformation of different employees %d: ", (i+1));
printf("\nEmployee name: %s\n", employee[i].name);
printf("Employee ID: %d\n", employee[i].employee_ID);
printf("Date: %d\n", employee[i].date);
printf("Month: %d\n", employee[i].month);
printf("Year: %d\n", employee[i].year);
}

printf("\n");
for(i = 0; i < n; i++){
for(j = i+1; j < n; j++){
if(employee[i].year > employee[j].year){
int temp = employee[i].year;
employee[i].year = employee[j].year;
employee[j].year = temp;
}
}
}
```

```
printf("Name:%s\n",employee[i].name);
printf("Employee ID:%d\n",employee[i].employee_ID);
printf("Date:%d\n",employee[i].date);
printf("Month:%d\n",employee[i].month);
printf("Year:%d\n",employee[i].year);
}
return 0;
}
```

Output:

Enter number of information you want to store:

3

Enter the information of 5 employees: #1

Enter Name of the employee: uyen

Enter Employee ID: 1210070089

Enter Date: 23

Enter Month: 4

Enter Year: 2020

Enter the information of 5 employees: #2

Enter Name of the employee: yeshi

Enter Employee ID: 190039930

Enter Date: 23

Enter Month: 4

Enter Year: 2001

Enter the information of 5 employees: #3

Enter Name of the employee: zamu

Enter Employee ID: 12190102

Enter Date: 1

Enter Month: 6

Enter Year: 2010

DISPLAYING INFORMATION ABOUT EMPLOYEES

Information of different employees 1:

Employee name: ❖

Employee ID: 2020

Date: 2020

Month: 2020

Year: 2020

Information of different employees 2:

Employee name: ❖

Employee ID: 2001

Date: 2001

Month: 2001


Year: 2001

Information of different employees 3:

Employee name: 
Employee ID: 2010
Date: 2010
Month: 2010
Year: 2010

Name: 
Employee ID:2001
Date:2001
Month:2001
Year:2001

Name: 
Employee ID:2010
Date:2010
Month:2010
Year:2010

Name: 
Employee ID:2020
Date:2020
Month:2020
Year:2020

Question 2

Source code:

```
#include <stdio.h>
union customers{
    char name[20];
    int acc_no;
    int amount;
};
int main()
{
    int mem, acc_no, amount;
    union customers bank[10];
    int choice;
do{
    printf("\nBANK OF BHUTAN");
    printf("\n1.Add Customers details");
    printf("\n2.View Customers details");
    printf("\n3.Deposit");
    printf("\n4.Withdraw");
    printf("\nEnter number given above to compute: ");
    scanf("%d",&choice);
switch(choice){
    case 1:
        printf("\nEnter the number of customers you want:");
        scanf("%d",&mem);
        for(int i = 0; i < mem; i++){
            printf("\nPlease enter the name: ");
            scanf("%s",bank[i].name);
            printf("Please enter the Account number: ");
            scanf("%d",&bank[i].acc_no);
            printf("Please enter the amount you want to deposit: ");
            scanf("%d",&bank[i].amount);
        }
        break;
    case 2:
        printf("\nDetails of those customers who have over than Nu.10000 amount: ");

        for(int i=0; i < mem; i++){
            if(bank[i].amount > 10000){
                printf("\nName :%s",bank[i].name);
                printf("\nAccount No :%d",bank[i].acc_no);
                printf("\nAmount :%d",bank[i].amount);
            }
        }
        break;

    case 3:
        printf("\nEnter Account no to deposit: ");
        scanf("%d",&acc_no);
        for(int i = 0; i < mem; i++){
```

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        if(bank[i].acc_no == acc_no){
            printf("\nEnter amount you want to desposit: ");
            scanf("%d",&amount);
            bank[i].amount = bank[i].amount + amount;
            printf("\nTotal Amount :%d",bank[i].amount);
        }
        else{
            printf("\nNo such account no is registered in the bank");
        }
    }
    break;
case #include <stdio.h>
union customers{
    char name[20];
    int acc_no;
    int amount;
};
int main()
{
    int mem, acc_no, amount;
    union customers bank[10];
    int choice;
do{
    printf("\nBANK OF BHUTAN");
    printf("\n1.Add Customers details");
    printf("\n2.View Customers details");
    printf("\n3.Deposit");
    printf("\n4.Withdraw");
    printf("\nEnter number given above to compute: ");
    scanf("%d",&choice);
switch(choice){
    case 1:
        printf("\nEnter the number of customers you want:");
        scanf("%d",&mem);
        for(int i = 0; i < mem; i++){
            printf("\nPlease enter the name: ");
            scanf("%s",bank[i].name);
            printf("Please enter the Account number: ");
            scanf("%d",&bank[i].acc_no);
            printf("Please enter the amount you want to deposit: ");
            scanf("%d",&bank[i].amount);
        }
        break;
    case 2:
        printf("\nDetails of those customers who have over than Nu.10000 amount: ");

        for(int i =0; i < mem; i++){
            if(bank[i].amount > 10000){
                printf("\nName :%s",bank[i].name);
                printf("\nAccount No :%d",bank[i].acc_no);
                printf("\nAmount :%d",bank[i].amount);
            }
        }
    }
}

```

```

    }
    }
    break;

    case 3:
    printf("\nEnter Account no to deposit: ");
    scanf("%d",&acc_no);
    for(int i = 0; i < mem; i++){
    if(bank[i].acc_no == acc_no){
    printf("\nEnter amount you want to desposit: ");
    scanf("%d",&amount);
    bank[i].amount = bank[i].amount + amount;
    printf("\nTotal Amount :%d",bank[i].amount);
    }
    else{
    printf("\nNo such account no is registered in the bank");

    }
    }
    break;
    case 4:
    printf("\nEnter Account no to withdraw: ");
    scanf("%d",&acc_no);
    for(int i = 0; i < mem; i++){
    if(bank[i].acc_no == acc_no){
    printf("\nPlease enter amount you want to Withdraw :");

    scanf("%d",&amount);
    if(bank[i].amount >= amount){
    bank[i].amount = bank[i].amount - amount;
    printf("\nBalance Amount :%d",bank[i].amount);

    }
    else{
    printf("\nYou don't have enough amount to Withdraw");

    }
    }
    else{
    printf("\nNo such account no is registered in the bank");

    }
    }
    break;
    default:
    printf("\nOpps! System Error");

    }
    }
    while(choice != 5);
    return 0;
}4:

```

```

printf("\nEnter Account no to withdraw: ");
scanf("%d",&acc_no);
for(int i = 0; i < mem; i++){
if(bank[i].acc_no == acc_no){
printf("\nPlease enter amount you want to Withdraw :");

scanf("%d",&amount);
if(bank[i].amount >= amount){
bank[i].amount = bank[i].amount - amount;
printf("\nBalance Amount :%d",bank[i].amount);

}
else{
printf("\nYou don't have enough amount to Withdraw");

}
}
else{
printf("\nNo such account no is registered in the bank");

}
}
break;
default:
printf("\nOpps! System Error");

}
}
while(choice != 5);
return 0;
}

```

Output:

BANK OF BHUTAN

- 1.Add Customers details
- 2.View Customers details
- 3.Deposit
- 4.Withdraw

Enter number given above to compute: 1

Enter the number of customers you want:1

Please enter the name: ugyen

Please enter the Account number: 12190102

Please enter the amount you want to deposit: 30000

BANK OF BHUTAN

- 1.Add Customers details
- 2.View Customers details
- 3.Deposit
- 4.Withdraw

Enter number given above to compute: 2

Details of those customers who have over than Nu.10000 amount:

Name :Ou

Account No :30000

Amount :30000

BANK OF BHUTAN

1.Add Customers details

2.View Customers details

3.Deposit

4.Withdraw

Enter number given above to compute: 3

Enter Account no to deposit: 490103983

No such account no is registered in the bank

BANK OF BHUTAN

1.Add Customers details

2.View Customers details

3.Deposit

4.Withdraw

Enter number given above to compute: 4

Enter Account no to withdraw: 12190102

No such account no is registered in the bank

BANK OF BHUTAN

1.Add Customers details

2.View Customers details

3.Deposit

4.Withdraw

Enter number given above to compute: 5

Opps! System Error

Question 3

Source code:

```
#include <stdio.h>
struct students
{
    int student_ID;
    char name[50];
    int date;
    int month;
    int year;
};
int main()
{
    struct students detail[100];
    int i, n, comp;
    //Current date
    int current_date = 25;
    int current_month = 10;
    int current_year = 2020;
    printf("Total number of details you want to enter: ");
    scanf("%d", &n);
    for(i = 0; i < n; i++){
        printf("\nDetail of student %d\n", (i+1));
        printf("Enter ID: ");
        scanf("%d", &detail[i].student_ID);
        printf("Enter name: ");
        scanf("%s", detail[i].name);
        printf("Enter date of joining dd <1-31>: ");
        scanf("%d", &detail[i].date);
        printf("Enter month of joining mm <1-12>: ");
        scanf("%d", &detail[i].month);
        printf("Enter year of joining yy <4 integers>: ");
        scanf("%d", &detail[i].year);
    }
    printf("\nName of students who have been in the college for more than or equal to years:");
    for(i = 0; i < n; i++){
        comp = current_year - detail[i].year;

        if(comp > 3){
            printf("%s\n", detail[i].name);
        }
        if(comp == 3){
            if(detail[i].month > current_month){
                printf("%s\n", detail[i].name);
            }
        }
        if(comp == 3 && detail[i].month == current_month){
            if(detail[i].date > current_date){
                printf("%s\n", detail[i].name);
            }
        }
    }
}
```

```
    }  
    }  
    return 0;  
}
```

Output:

Total number of details you want to enter: 3

Detail of student 1

Enter ID: 12190102

Enter name: ugyen

Enter date of joining dd <1-31>: 4

Enter month of joining mm <1-12>: 3

Enter year of joining yy <4 integers>: 2010

Detail of student 2

Enter ID: 12180078

Enter name: pema

Enter date of joining dd <1-31>: 5

Enter month of joining mm <1-12>: 7

Enter year of joining yy <4 integers>: 2018

Detail of student 3

Enter ID: 2020001

Enter name: yangchen

Enter date of joining dd <1-31>: 18

Enter month of joining mm <1-12>: 11

Enter year of joining yy <4 integers>: 2020

Name of students who have been in the college for more than or equal to years:ugyen

Question 4

Source code:

```
#include <stdio.h>
struct students
{
    int student_ID;
    char name[50];
    int date;
    int month;
    int year;
};
int main()
{
    struct students detail[100];
    int i, n, comp;
    //Current date
    int current_date = 25;
    int current_month = 10;
    int current_year = 2020;
    printf("Total number of details you want to enter: ");
    scanf("%d", &n);
    for(i = 0; i < n; i++){
        printf("\nDetail of student %d\n", (i+1));
        printf("Enter ID: ");
        scanf("%d", &detail[i].student_ID);
        printf("Enter name: ");
        scanf("%s", detail[i].name);
        printf("Enter date of joining dd <1-31>: ");
        scanf("%d", &detail[i].date);
        printf("Enter month of joining mm <1-12>: ");
        scanf("%d", &detail[i].month);
        printf("Enter year of joining yy <4 integers>: ");
        scanf("%d", &detail[i].year);
    }
    printf("\nName of students who have been in the college for more than or equal to years:");
    for(i = 0; i < n; i++){
        comp = current_year - detail[i].year;

        if(comp > 3){
            printf("%s\n", detail[i].name);
        }
        if(comp == 3){
            if(detail[i].month > current_month){
                printf("%s\n", detail[i].name);
            }
        }
        if(comp == 3 && detail[i].month == current_month){
            if(detail[i].date > current_date){
                printf("%s\n", detail[i].name);
            }
        }
    }
}
```

```

    }
    }
    return 0;
}

```

Output:

Enter the no of football players:

2

Enter player information:

Enter the player name: neymer

Enter the player age: 34

Enter total_match played: 50

Enter the average_goal scored: 10

Enter the player name: ugyen

Enter the player age: 10

Enter total_match played: 2

Enter the average_goal scored: 3

Players info in terms of average go scored from lowest to highest

Name	Age	Total_match	Average_goal
ugyen	10	2	3
neymer	34	50	10