EAST WEST UNIVERSITY

Fall-2021

Project Report

Group-4

Project Name: Call Distributor In Call Center

Course code: CSE207

Course title: Data Structure.

Section: 03

Submitted To

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Title: Call Distributor In call Center

Objective:

Call Distributor in call center is a system that gets incoming calls, assorts them based on preset situations and transfers the decision to the proper agent. A programmed name routing machine that routes incoming calls to skill-primarily based totally agents, groups or menus based on rules like area code of telephone number, time of the day, etc. The call center determines the order in which the calls are to be distributed to the agents. This could be based at the experience of the agent.

Theory:

The characteristic of call distribution device is to distribute calls programmatically. Call Distributor in call center routing is the process that takes distributing calls programmatically to the proper agent in the shortest time span possible. The routing is determined based on several elements like time of the day, call traffic, the origin of the phone number.

Design:
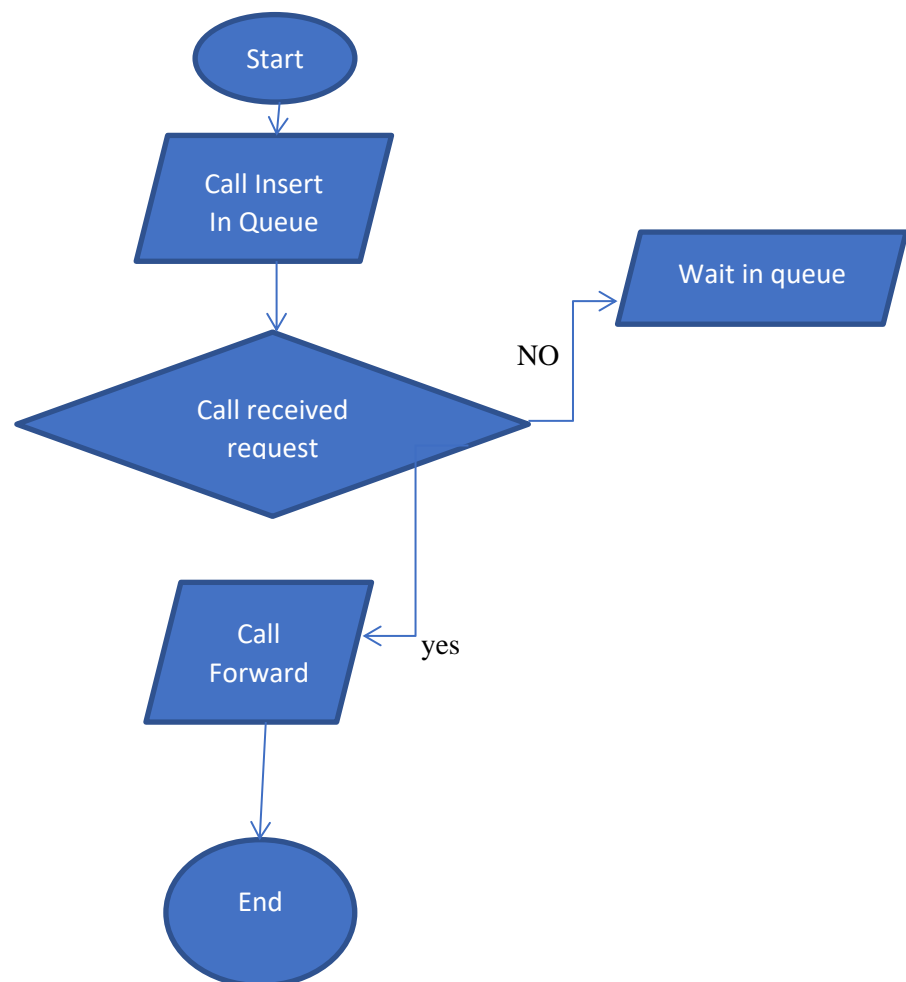
Software Requirements:

1. Code Blocks

Implementation:

At first create a server:

```cpp
struct call
{
    int phno;
    char date[100];
    char time[100];
    int id;
    struct call *link;
};
struct call * front=NULL,*rear=NULL, *top = NULL;
int callcount=0;
```

Call Insert in queue:

```cpp
void Queue::insert()
{
    struct call *p=new call();

    srand (time(NULL));
    time_t curr_time;
    time_t my_time = time(NULL);
    tm * curr_tm;
    time(&curr_time);
    curr_tm = localtime(&curr_time);
    cout<<endl<<"Call Details Insertion in Queue : "<<endl;
    cout<<"Enter the phone number : ";
    cin>>p->phno;
    strftime(p->date, 50, " %B %d, %Y", curr_tm);
    cout<<"Date is : " <<p->date<<endl;
    strcpy(p->time,ctime(&my_time));
    cout<<"Time is : " <<p->time;
    callcount++;
    p->id=(rand() % 10 + 1)+i;
    i++;
    p->link=NULL;
    if(rear==NULL)
    {
    front=p;
    top = p;
    }
    else
    {
        rear->link=p;
    }
    rear=p;
```

Call Forward in other Server(call request):

```cpp
void Queue::delcall()
{
    if(front==NULL)
    {
        cout<<endl<<"Presently No such call is there to be routed for the agent "<<endl;

    }
    else
    {
        cout<<endl<<"Recently routed call to agent is:" <<endl;
        cout<<"Phone No : "<<front->phno<<endl;
        cout<<"Date : "<<front->date<<endl;
        cout<<"Call Time : "<<front->time;
        cout<<"Caller id : "<<front->id<<endl;
        if(front==rear)
        {
            front=rear=NULL;
        }
        else
        {
            front=front->link;
        }
    }
}
```

Call History Save In Stack:

```cpp
void Stack:: status()
{
    int j;
    struct call *temp=top;
    if(top==NULL)
    cout<<endl<<"Presently No such call related activity is there"<<endl;
    else
    {
        cout<<endl<<"Caller information details : "<<endl;
        do
        {
        cout<<endl<<"Stored call details are:"<<endl;
        cout<<"Phone No : "<<temp->phno<<endl;
        cout<<"Date : "<<temp->date<<endl;
        cout<<"Call Time : "<<temp->time;
        cout<<"Caller id : "<<temp->id<<endl;
        temp=temp->link;
        cout<<endl;
        }
        while(temp!=NULL);
    }
}
```

Conclusion and Future Improvements:

Call distributor in call centers facilitate call queue management wherein callers can be greeted with custom greetings or wait time until the call can be automatically transferred to an available agent. Fair distribution in a call center is very important else callers will have to wait a long time.