

PROJECT REPORT

1. Introduction

1.1 Overview

Customer churn is often referred to as customer attrition, or customer Defection which is the rate at which the customers are lost. Customer Customer churn is a major problem and one of the most important Concerns for large companies. Due to the direct effect on the revenues of the companies, especially in the telecom field, companies are seeking to develop means to predict potential customer to churn.

Looking at churn, different reasons trigger customers to terminate their contracts, for example better price offers, more interesting packages, bad service experiences or change of customers personal situation.

Purpose


Customer churn has become highly important for companies because of increasing competition among companies, increased importance of marketing strategies and conscious behaviour of customers in the recent years. Customers can easily trend toward alternative services. Companies must develop various strategies to prevent these possible trends, depending on the services they provide. During the estimation of possible churns, data from the previous churns might be used. An efficient churn predictive model benefits companies in many ways. Early identification of customers likely to leave may help to build cost effective ways in marketing strategies.

2. .Problem Definition &Design thinking

2.1 Empathy Map

1 of 1
🔍

Template



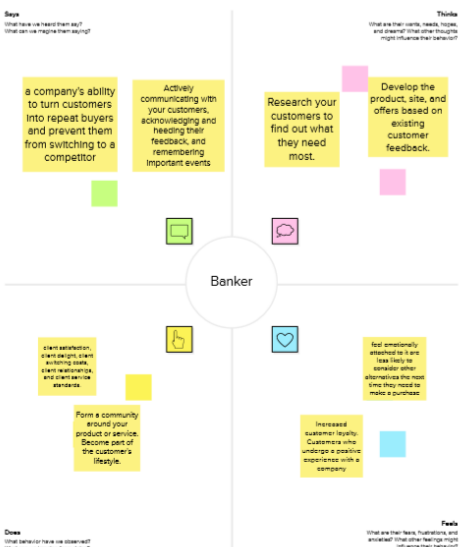
Empathy map

Use this framework to develop a deep, shared understanding and empathy for other people. An empathy map helps describe the aspects of a user's experience, needs and pain points, to quickly understand your users' experience and mindset.

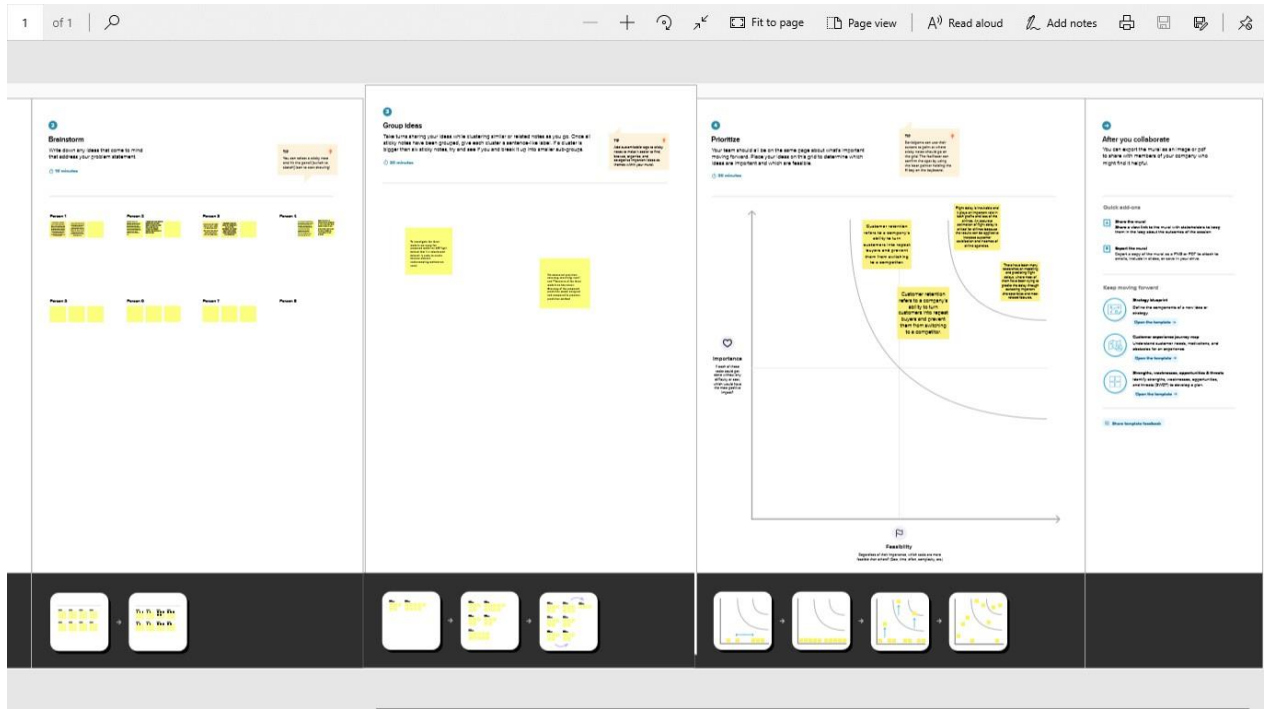
🔗 [Share template feedback](#)

Build empathy

The information you add here should be representative of the observations and research you've done about your users.



2.2 Ideation & Brainstorming Map



3. Result

3.1 Date Model

TELECOM CUSTOMER CHURN PREDICTION

Customer churn has become highly important for companies because of increasing competition among companies, increased importance of marketing strategies and conscious behaviour of customers in the recent years. Customers can easily trend toward alternative services. Companies must develop various strategies to prevent these possible trends, depending on the services they provide. During the estimation of possible churns, data from the previous churns might be used. An efficient churn predictive model benefits companies in many ways. Early identification of customers likely to leave may help to build cost effective ways in marketing strategies. Customer retention campaigns might be limited to selected customers but it should cover most of the customer. Incorrect predictions could result in a company losing profits because of the discounts offered to continuous subscribers.



Click me to continue with prediction

PREDICTION FORM

Gender	▼	Yes	▼
Yes	▼	Yes	▼
3		Yes	▼
No Phone service	▼	DSL	▼
No	▼	Yes	▼
No	▼	No	▼
Yes	▼	Yes	▼
Month to Month	▼	Yes	▼
Bank Transfer(Automatic)	▼	39.5	
39.5			

Submit

TELECOM CUSTOMER CHURN PREDICTION



THE CHURN PREDICTION SAYS NO

3.2 Activity & Screenshot

Attach the screenshots of your project activity along with the description.

4. Trailhead Profile

Team Lead :

Member 1 :

Member 2 :

Member3 :

5. Advantages & Disadvantages

*** Effective prediction of flight delays will not only reduce the economic losses caused by airline delays, but also reduce the stay time and improve the traveling satisfaction of passengers.**

*** Carriers attribute flight delays to several causes such as bad weather conditions, airport congestion, airspace congestion, and use of smaller aircraft by airlines. These delays and cancellations tarnish the airlines' reputation, often resulting in loss of demand by passengers.**

6 . Appendix

```
@app.route('/')
def helloworld():
    return render_template("base.html")
@app.route('/assesment')
def prediction():
    return render_template("index.html")

@app.route('/predict', methods = ['post'])
def admin():
    a= request.form["gender"]
    if (a == 'f'):
        a=0
    if (a == 'm'):
        a=1
    b= request.form["srcitizen"]
    if (b == 'n'):
        b=0
    if (b == 'y'):
        b=1
    c= request.form["partner"]
    if (c == 'n'):
        c=0
    if (c == 'y'):
```

```

c=1
d= request.form["dependents"]
if (d == 'n'):
    d=0
if (d == 'y'):
    d=1
e= request.form["tenure"]
f= request.form["phservices"]
if (f == 'n'):
    f=0
if (f == 'y'):
    f=1
g= request.form["multi"]
if (g == 'n'):
    g1,g2,g3=1,0,0
if (g == 'nps'):
    g1,g2,g3=0,1,0
if (g == 'y'):
    g1,g2,g3=0,0,1
h= request.form["is"]
if (h == 'dsl'):
    h1,h2,h3=1,0,0
if (h == 'fo'):
    h1,h2,h3=0,1,0
if (h == 'n'):
    h1,h2,h3=0,0,1
i= request.form["os"]
if (i == 'n'):
    i1,i2,i3=1,0,0
if (i == 'nis'):
    i1,i2,i3=0,1,0
if (i == 'y'):
    i1,i2,i3=0,0,1
j= request.form["ob"]
if (j == 'n'):
    j1,j2,j3=1,0,0
if (j == 'nis'):
    j1,j2,j3=0,1,0
if (j == 'y'):
    j1,j2,j3=0,0,1
k= request.form["dp"]
if (k == 'n'):
    k1,k2,k3=1,0,0
if (k == 'nis'):
    k1,k2,k3=0,1,0
if (k == 'y'):
    k1,k2,k3=0,0,1
l= request.form["ts"]
if (l == 'n'):
    l1,l2,l3=1,0,0
if (l == 'nis'):

```

```

    l1,l2,l3=0,1,0
if (l == 'y'):
    l1,l2,l3=0,0,1
m= request.form["stv"]
if (m == 'n'):
    m1,m2,m3=1,0,0
if (m == 'nis'):
    m1,m2,m3=0,1,0
if (m == 'y'):
    m1,m2,m3=0,0,1
n= request.form["smv"]
if (n == 'n'):
    n1,n2,n3=1,0,0
if (n == 'nis'):
    n1,n2,n3=0,1,0
if (n == 'y'):
    n1,n2,n3=0,0,1
o= request.form["contract"]
if (o == 'mtm'):
    o1,o2,o3=1,0,0
if (o == 'oyr'):
    o1,o2,o3=0,1,0
if (o == 'tyrs'):
    o1,o2,o3=0,0,1
p= request.form["pmt"]
if (p == 'ec'):
    p1,p2,p3,p4=1,0,0,0
if (p == 'mail'):
    p1,p2,p3,p4=0,1,0,0
if (p == 'bt'):
    p1,p2,p3,p4=0,0,1,0
if (q == 'cc'):
    p1,p2,p3,p4=0,0,0,1
q= request.form["plb"]
if (q == 'n'):

```