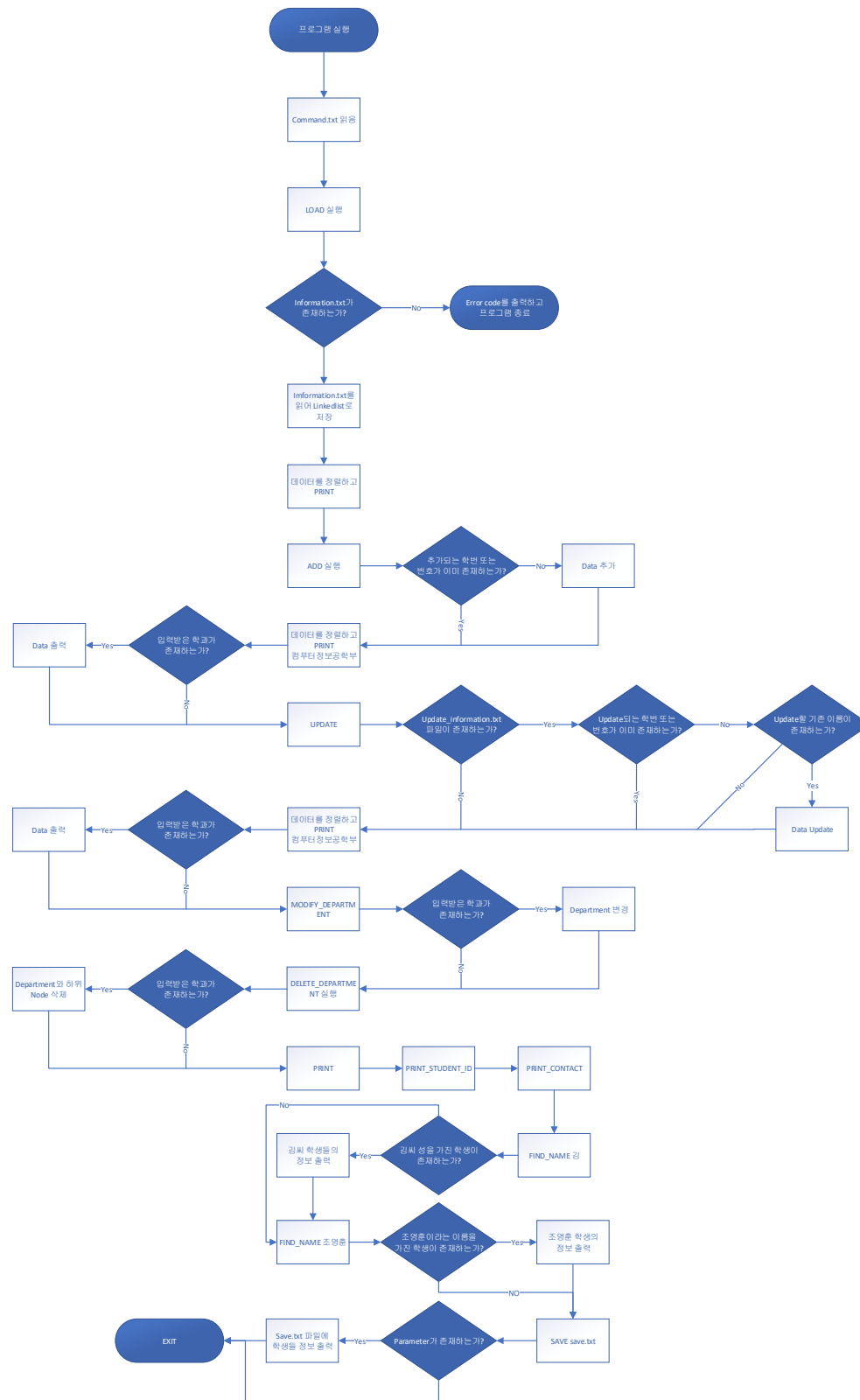


## # Introduction

This program gets student's data, and makes linked list of departments, names, grades, student IDs and contacts. Using commands, user can load, add, update, modify, delete, print, find and save data.

## # Flowchart



## # Algorithm

In Manager, all commands are read and called by READ\_COMMAND. Read each command line and call function.

To load user data, program gets line of 'Information.txt', and gives department for department list. Then the function checks department if it already exists. There are no department data, add it. After that, program adds user data by NameNode.

Add algorithm is almost same as LOAD. But it reads 'Add\_information.txt' and if same user data was already inserted, reports error.

Update function finds student's name and update new data. Read 'Update\_information.txt' and change old data to new. If old data does not exist or input data is not new, reports error.

To modify department, function get two parameters of changed one and changing another. Searching a list, program changes parameters when changing department does not exist. But it exists, append before data to after.

Delete department algorithm is simple. To trace department's student, cut all link, and delete data. In this situation, all empty link should be reconnected.

Print function is overloaded. If parameter does not exist, it prints all data of department list. But parameter exists, it prints data of department of parameter. Through department links, it prints each department's students.

Print\_Student\_ID just reads data of StudentIDList and print it.

Print\_Contact also reads data of ContactList and print it.

Finding name searches not only one name but also family name. If parameter is common name, search name list and print its information. But if parameter is family name, it searches names which have parameter as family name and print all information,

## # Result Screen

[LOAD]

Success

[PRINT]

화학공학과/정인주/4/2015114025/010-2675-3802  
화학공학과/송민규/3/2013114098/010-1216-1430  
화학공학과/서하진/2/2017114089/010-2406-2716  
화학공학과/노미르/4/2015114046/010-4224-8667  
화학공학과/진수정/1/2018114021/010-5867-2730  
행정학과/정석호/2/2013184801/010-4060-4666  
행정학과/안승찬/1/2018184801/010-6851-0848  
행정학과/김채은/4/2007184801/010-6233-6147  
행정학과/김용훈/2/2017184801/010-0323-1743  
행정학과/한지현/1/2018184811/010-5582-6784  
컴퓨터정보융합학부/남학승/2/2017720402/010-6745-7140  
컴퓨터정보융합학부/김유현/2/2017720420/010-5147-1700  
컴퓨터정보공학부/최정미/2/2017720216/010-7147-4850  
컴퓨터정보공학부/여기명/2/2017720235/010-6810-1020  
컴퓨터정보공학부/박승한/2/2017720207/010-7078-1816  
컴퓨터정보공학부/김수현/2/2017720261/010-3518-1643  
컴퓨터정보공학부/김종우/1/2018720261/010-4155-3861  
컴퓨터소프트웨어학부/표혜미/2/2017720314/010-3567-0606  
컴퓨터소프트웨어학부/정하나/2/2017720325/010-4103-0755  
컴퓨터소프트웨어학부/양지용/2/2017720352/010-7507-8476  
컴퓨터소프트웨어학부/고은솔/1/2018720313/010-0605-1543  
컴퓨터소프트웨어학과/이정환/4/2011726013/010-5846-7865  
컴퓨터소프트웨어학과/이봄/4/2013826051/010-5631-6467  
컴퓨터소프트웨어학과/박진호/4/2012726093/010-7653-4301  
컴퓨터소프트웨어학과/권창우/3/2013726011/010-0550-7817  
컴퓨터소프트웨어학과/고은주/3/2016726013/010-3002-2831  
컴퓨터공학과/진세진/4/2012722041/010-7453-8246

[ADD]

Success

[PRINT 컴퓨터정보공학부]

컴퓨터정보공학부/최정미/2/2017720216/010-7147-4850

컴퓨터정보공학부/여기명/2/2017720235/010-6810-1020

컴퓨터정보공학부/박승한/2/2017720207/010-7078-1816

컴퓨터정보공학부/김수현/2/2017720261/010-3518-1643

컴퓨터정보공학부/김종우/1/2018720261/010-4155-3861

[UPDATE]

Error code: 300-2

[PRINT 컴퓨터정보공학부]

컴퓨터정보공학부/최정미/2/2017720216/010-7147-4850

컴퓨터정보공학부/여기명/2/2017720235/010-6810-1020

컴퓨터정보공학부/박승한/2/2017720207/010-7078-1816

컴퓨터정보공학부/김수현/2/2017720261/010-3518-1643

컴퓨터정보공학부/김종우/1/2018720261/010-4155-3861

[MODIFY\_DEPARTMENT 컴퓨터공학과 컴퓨터정보공학부]

Success

[DELETE\_DEPARTMENT 컴퓨터정보공학부]

Success

[PRINT]

화학공학과/정인주/4/2015114025/010-2675-3802

화학공학과/송민규/3/2013114098/010-1216-1430

화학공학과/서하진/2/2017114089/010-2406-2716

화학공학과/노미르/1/2015114046/010-4224-8667

[SAVE save.txt]

SAVE Success

[EXIT]

save.txt - 메모장

파일(F) 편집(E) 서식(O) 보기(V) 도움말(H)

국어국문학과/김종민/2/2015304058/010-0602-5113  
국어국문학과/나지애/3/2016304021/010-2845-5250  
국어국문학과/변현우/2/2017304042/010-2705-1081  
국어국문학과/조용재/3/2015304023/010-4166-6834  
국어국문학과/노희정/1/2018304067/010-4248-2121  
국제학부/고홍우/1/2018743863/010-6847-4702  
국제학부/윤영직/3/2013743821/010-3113-5218  
국제학부/이가온/4/2018743849/010-4550-5826  
국제학부/허준/1/2018743855/010-8006-0502  
국제학부/유재성/2/20177438621/010-6153-2201  
미디어영상학부/강희정/2/2017317078/010-8317-6886  
미디어영상학부/김태우/3/2013317097/010-5082-0720  
미디어영상학부/서진호/3/2016317024/010-1144-6221  
미디어영상학부/오동규/4/2012317044/010-6600-5810  
미디어영상학부/박진규/1/2018317001/010-4626-7036  
법학부/고휘가람/2/2012613801/010-0371-6446  
법학부/김혜진/3/2009613823/010-8361-3567  
법학부/박가을/4/2013613749/010-3133-6354  
법학부/전세기/2/2017613877/010-6578-4460  
법학부/신태욱/1/2018613899/010-7254-0272  
산업심리학과/김진현/3/2013311011/010-1511-8754  
산업심리학과/유영호/2/2017311092/010-5230-6135  
산업심리학과/이준호/3/2014311087/010-0764-5888  
산업심리학과/정수찬/4/2010311092/010-8673-1123  
산업심리학과/김태원/1/2018311058/010-1241-7626  
생활체육학과/도복순/4/2015609022/010-1365-8027  
생활체육학과/오정욱/1/2018609099/010-6487-8715  
생활체육학과/장윅주/2/2013609056/010-1520-8802

## # Study

When I first compile, there are so many bug, error and mistake. They are intricately intertwined, so when I fix one, another bug occurs. Since I use return type by string, it sends me error message. I don't know why it is, so I have to change many cords. And when I save data, there are problem that the data was altered. Because of it, my cords had to open file stream for each function.