

# Project Report : LinkedIn

## Group Members:

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## Project Overview:

We have attempted to replicate a well-known application that is available on all platforms such as android, ios, web, etc. This app is called "LinkedIn" and its much popular among professionals.

## Need of this project and benefits

- In this current era, searching for jobs, making contacts with professionals and applying for jobs in a company is not an easy task.
- Not only these tasks are hard but they are also highly competitive and keeping track with the latest requirements in a particular field and staying updated is a necessity now. That's where our project shows relevance
- On our console based app, one can make connections according to his/her choice, lookout for companies, search and apply for jobs in those companies and also stay in contact via messages
- One can also create his company on our platform, posts jobs and hire required employees too!

## How we came up with this idea?

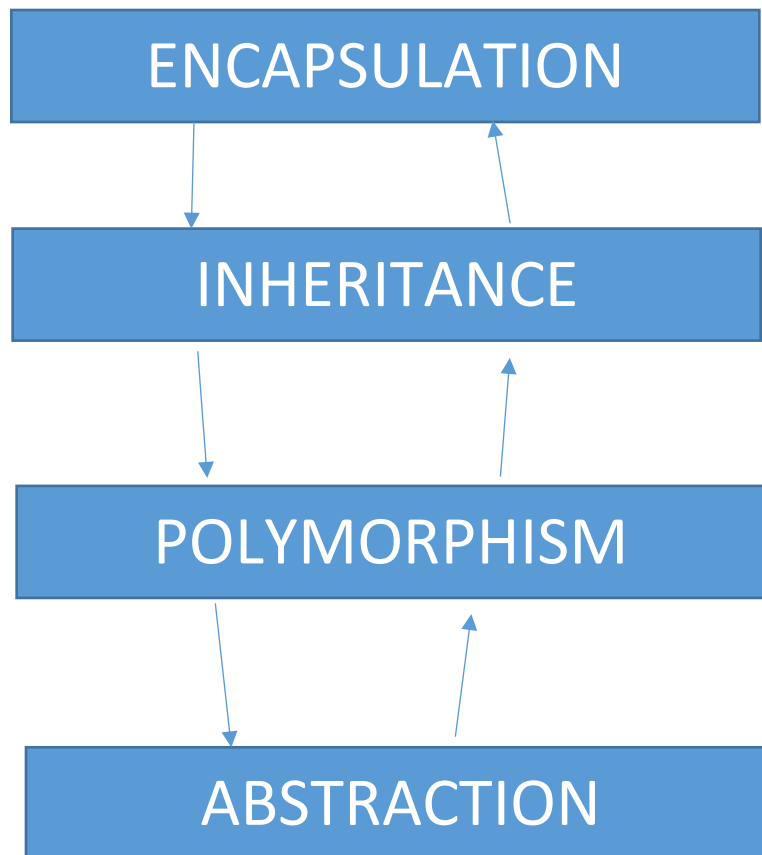
After learning the core principles of object-oriented programming i.e.:

- ENCAPSULATION
- INHERITANCE

- POLYMORPHISM
- ABSTRACTION

We ,as a team, came to a conclusion that there can be no more better way to express these principles than by creating a project that replicates LinkedIn as it has the potential to hold all of these functionalities along with many more..

### **Incorporation of OOP principles**



## CODE SNIPPETS EXAMPLES:

### ENCAPSULATION:

```
class User {  
private:  
    struct User_structure u1;  
public:  
    User() {}
```

NOTE THAT WE HAVE  
USED ACCESS  
MODIFIERS SUCH AS  
PUBLIC AND PRIVATE  
TO MAKE THE DATA  
AVAILABLE  
ACCORDING TO THE  
GIVEN SCENARIO

### INHERITANCE:

```
class Company :public User {  
private:
```

```
class Person :public User {  
private:
```

BOTH COMPANY AND  
PERSON CLASSES  
ARE INHERITING USER  
CLASS PUBLICLY

### POLYMORPHISM:

```
C User.h > User  
105     virtual void Add_to_file() = 0;  
106     virtual void Read_from_file() = 0;  
107     virtual void post_on_my_wall()=0;  
108     virtual void view_my_wall()=0;  
109     virtual bool log_in()=0;  
110
```

FOLLOWING  
FUNCTIONS ARE  
DEFINED LATER IN  
CHILD CLASSES

### ABSTRACTION:

```
ID : 3
Name : FaceBook
About :
Short bio :
Website : No input yet
Sector : private
Founded on : 14-05-2023
City : Chicago
Country : USA
Industry : SocialMedia
Contact no. :
```

**NOTE THAN  
SENSITIVE  
INFORMATION SUCH  
AS PASSWORD IS  
BEING HIDDEN HERE**

**FUNCTIONALITIES (all names are pretty much self-explanatory):**

**GENERAL FUNCTIONALITIES:**

```
//validation fuctions
bool isPasswordValid(string);
bool check_string(string s);
bool sign_up_of_person();
bool sign_up_of_company();

|

> int main() { ...

    //checks the validity of password
> bool isPasswordValid(string password) {
    //fuction to check string
> bool check_string(string s) { ...

    //making sign up function our program w
> bool sign_up_of_person() { ...

    //making sign up function our program w
> bool sign_up_of_company() { ...
```

**PERSON FUNCTIONALITIES:**

```
void view_connection_request() { ...
void removing_data_from_rr(bool check1,string filename) { ...
void removing_request(bool check2,string filename) { ...
void sending_connection_request() { ...
void chat_with_connections() { ...
void remove_connection() { ...
int show_connection() { ...
int manage_network() { ...
bool log_in() { ...
void editProfile() { ...
void viewProfile() { ...
void Add_to_file() { ...
void Read_from_file() { ...
void search_for_person_in_all_persons_file() { ...
void post_on_my_wall() { ...
void view_my_wall() { ...
void view_my_newsfeed() { ...
void search_and_apply_for_jobs() { ...
```

## COMPANY FUNCTIONALITIES:

```
void Add_to_file() { ...  
void Read_from_file() { ...  
void search_for_company_in_all_company_file() { ...  
void input_Company_Data() { ...  
bool log_in(){ ...  
void post_on_my_wall(){ ...  
void view_my_wall(){ ...  
void post_job(){ ...  
void view_jobs_posted(){ ...  
void view_applications_for_job(){ ...  
int check_num_of_applicants(){ ...  
void view_employees(){ ...
```

## CONCLUSION:

"The road to success is not easy to navigate, but with hard work, drive, and passion, it's possible to achieve your dreams." - Tommy Hilfiger"

In conclusion, we would like to say that we have achieved more than we could ever imagine. All 3 of us are extremely proud of ourselves and each other. We are thankful to our teachers i.e. **Ms.shazia** and **Sir Basit** , who taught us OOP in the best way possible....