EXSEND Software Documentation

Global Variable

int choices  
Store user choices

int global\_id  
Used to store IDs status of user interaction

double graph\_check  
Use to validate database data

double graph\_count  
Use to validate database data

int input\_check  
Use as a counter to know when to start dijkstra algorithm

char input\_user  
Store users username input

char input\_password  
Store users password input

char input\_sender\_name   
Store users sender name input

char input\_sender\_address   
Store users sender address input

char input\_sender\_location  
Store users sender location input

char input\_receiver\_name   
Store users receiver name input

char input\_receiver\_address   
Store users receiver address input

char input\_receiver\_location   
Store users receiver location input

int input\_price   
Store dijkstra output price

int login\_check   
To validate users credential

int users\_count   
Counter for how many registered users are in database

int user\_id  
Store users IDs from user database

char user  
Store users username from user database

char password  
Store users password from user database

int order\_count  
Counter for how many orders are stored in order database

int order\_id  
Store order IDs from order database

char order\_status  
Store order status from order database

int node\_count  
Counter for how many location/nodes from database

int source  
Store source location (for dijkstra algorithm)

int destination  
Store destination location (for dijkstra algorithm)

int graph  
Store graph from database

int price\_info  
Store prices from database

char sender\_name  
Store sender name from order database

char receiver\_name  
Store receiver name from order database

char sender\_address  
Store sender address from order database

char pickup\_location  
Store pickup location from order database

char receive\_address  
Store receiver address from order database

char receive\_location  
Store receiver location from order database

int location\_count  
Counter for how many locations are stored in location database

char location\_id  
Store IDs for each corresponding location from location database

char location  
Store location name from location database

int d\_count  
Counter for determining locations memory location for dijkstra result

char p\_count  
Counter for determining path memory location for dijkstra result

int length  
Store the amount of path needed to reach each location

int distance  
Store the distance for each source-destination

int route  
Store the path needed to reach each location

int counter\_x  
Counter to determine memory location for graph

int counter\_y  
Counter to determine memory location for graph

Function

void load\_database()  
Load database

void splash()  
Showing EXSEND Logo

void banner()  
Showing EXSEND Banner Logo

void menu\_ustatus()  
Showing EXSEND Banner Logo

void menu\_cstatus()  
Showing EXSEND Banner Logo

void menu\_customer()  
Load database

void customer\_delivery()  
Load database

void delivery\_sender\_name()  
Load database

**Pseudocode v1.0**  
Program Start  
|  
Load database file  
 | Import City Name and IDs to Memory  
 | Import Graph to Memory  
 | Import Delivery Database to Memory  
 | Import User Database  
 | Validate database  
Show Menu  
 Sign Up  
 | Demand User Information for Registration  
 | Export to User Database  
 | Reload Database  
 Sign In  
 | Demand Login Information  
 | IF Yes; Continue;  
 While Sender  
 | Show Menu  
 | Demand User Input  
 Sender Name  
 | Insert Name  
 Receiver Name  
 | Insert Name  
 Sender Address  
 | Insert Sender Address  
 Pickup City Location  
 | Show all available location  
 | Check if Pickup location same as Receiver City 🡪 Back to City Location  
 Receiver Address  
 | Insert Receiver Address  
 Receiver City Location  
 | Show all available location | Check if Receiver Location same as Pickup Location 🡪 Back to City Location  
 | IF user\_input = 6 continue;Run Dijkstra Algorithm from pickup location  
 | Calculate Price per km  
 | Show Price  
 | Show Est. Time  
 User OK!  
 | Export to Delivery Database  
 | Reload Database  
 | **Back to Menu**

While Sender [ Status Check ]  
 | Show Package Status according to User Name  
 Exit  
 **Back to Menu** While Courier  
 | Show Menu  
 | Demand User Input  
 | Show Delivery Job  
 Choose Delivery Job  
 | Run Dijkstra Algorithm source = delivery id  
 | Export Path to Memory  
 | Clear Linked List  
 | Export Read Path to Linked List  
 | Show Delivery Job Information and Route from Linked List  
 | Show Choices  
 Change Status  
 | Status change to Ongoing - Cancelled – Delivered  
 | Location Input  
 | Export Data to Delivery Database  
 | Reload Database  
Next or Previous Route  
 | Show Route according to choices  
 Exit  
 Show Main Menu  
Exit  
**Export All Memory Data to Database**  
Program Ended

Default Graph

privilege  
 1 : user  
 2 : courier

global\_id  
 1 : Login Screen ( Username )  
 2 : Login Screen ( Password )  
 3 : Courier start menu  
 4 : Customer Menu  
 41 : Customer Menu 🡪 Sending Package  
 411 : Customer Menu 🡪 Sending Package 🡪 Demand Sender/Receiver Name  
 412 : Customer Menu 🡪 Sending Package 🡪 Demand Sender/Receiver Location  
 413 : Customer Menu 🡪 Sending Package 🡪 Demand Sender/Receiver Address  
 42 : Customer Menu 🡪 Package Status Check  
 5 : Courier Menu  
 51 : Courier Menu 🡪 Show Order  
 511 : Courier Menu 🡪 Show Order 🡪 Change Status  
 5111 : Courier Menu 🡪 Show Order 🡪 Change Status 🡪 Converter IDs to city name

Features :  
+ Flexibility ( Easy to add more feature or implementation )  
+ Can count how many location are in the database  
+ File error checking and invalid data

Daftar Pustaka :

<https://janeman.wordpress.com/2011/11/10/tips-dan-trik-menulis-proposal-skripsi-bagi-mahasiswa-it-yang-masih-awam-part-i/>