

3. Based on the following UML class diagram in Figure 8.1, write a complete C++ program that implements the relationships among classes. The explanation of each method is as in Table 8.2.

Table 8.2: Explanation of each method in each class

Methods	Explanation
Flight class <code>addPassenger(Passenger)</code>	This method will add <code>Passenger</code> objects to the <code>passengerList</code> vector.
<code>printInfo()</code>	This method will display all flight information as an example below: Flight No: MH3120 Destination: Johor Bahru Departure: 8:10 Arrival: 9:00 Number of Passengers: 10

Passenger	printDetails()	This method will display all passenger information, i.e. name and age .
Kids class	printDetails()	<ul style="list-style-type: none"> • This method will display all kids passenger information. • This method overrides its superclass printDetails method. The values of its inherited attributes will be displayed by calling its inherited method.
Adult class	printDetails()	<ul style="list-style-type: none"> • This method will display all adults passenger information. • This method overrides its superclass printDetails method. The values of its inherited attributes will be displayed by calling its inherited method.
Time class	getHour()	This method will return the attribute value of hour .
	getMinute()	This method will return the attribute value of minute .

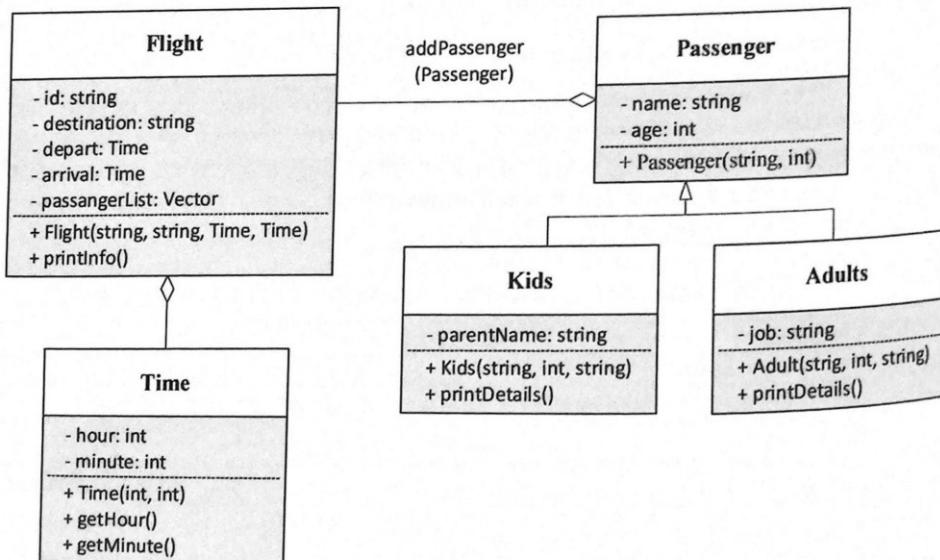


Figure 8.1: Class Diagram of **Flight**, **Passenger**, **Kids**, **Adult** and **Time** classes

LAB 8: INHERITANCE

Your program must be able to produce the following output as illustrated in Figure 8.2.

```
Flight Number: NAS7921
Destination: Johore Bahru
Departure: 8:10
Arrival: 9:00

Number of Passengers: 3
Number of Adults: 2
Number of Kids: 1

Passengers Details:
Name: Ali    Age: 34        Job Title      Lecturer
Name: Goh    Age: 25        Job Title      Student
Name: Azmi   Age: 3         Parents Name: Ali
```

Figure 8.2: Example of expected output