# Question 1 (Choose A or B)

* You are designing a system that transmits video signals over the network.
* You have coded the business logic of what video signal has to be transmitted in a DLL called "VideoBroadcaster"
* You have coded the logic of transmitting any packet over LAN in a DLL called "LanTransmitter"

1. We would add reference to the LanTransmitter dll in the VideBroadcaster dll
2. We would add reference to the VideoBroadcaster dll in the LanTransmitter dll

# Question 2 (Choose A or B)

What you think would be true in the case of Resharper and Visual Studio

1. Some Visual Studio DLL is refered by Resharper
2. Some Resharper DLL is refered by Visual Studio

# Question 3 (Choose A or B)

What you think would be true in the case of Resharper and Visual Studio

1. The entry point of the application is some Visual Studio, and Visual studio calls some resharper method to get resharper working
2. The entry point of the application is some Resharper Method, Resharper after initializing itself calls some Visual studio method

# Question 4 (Choose A or B)

What you think would be true

1. Resharper for VS 2017 was developed earlier that VS 2017
2. Resharper for VS 2017 was developed later that VS 2017

# Question 5

(Explain the below words in few sentences in the context of software development)

1. Dependency
2. Dependency Injection
3. Dependency Inversion Principle
4. Inversion of Control

**PTO**

# Question 9

* Over the past few years we have been using a Passport Application Processing System
* The system works well and we are happy with it.

What the current system does:

* The system reads a bunch of Passport Application forms.
* The system does the following for each application
  + Checks if the passport is issued by querying a REST system A, if issued then logs an error
  + Checks if already an application is submitted is submitted by querying another REST system B if application exists then logs an error
  + If application does not exists then submits the application in the REST system B if there are no issues in the name of the applicant
* Each passport application form contains First Name, Last Name, Phone number And Email Address

What we want the system to do

* After the application is submitted to the REST system B.
* A passport officer validates the application.
* If there are errors in the application then he rejects it, else takes the application to the next step.
* In the last 2 years, the number of application with basic errors is at 20%.
* To improve the efficiency of the process the passport officers have request to add validations in the system to validate the application form
* The initial request is to have the below 3 validations listed below.
* The passport officers will work on more validation rules and share more validations later.

## Initial validations

1. Log an error if the phone number is not 10 digits
2. Log an error if the email id does not contain the symbol "@"
3. Log an error if the First name or Last contains a "." in it.

The source code of the system can be found at

<https://github.com/nachiappannk/Training/raw/master/2018-07-18-Training/01-InitialQuestion/PassportApplicationSystem.zip>