<center>Assignment - 1 B</center>

* **Title** → To develop any distributed application through implementing client - server communication based on Java RMI

* **Theory** →

- **RMI:**

1. RMI is an API which allows an object to invoke a method of an object that exists in another address space & which could be on the same machine or on a remote machine

2. Through RMI, object running in a JVM present on a computer (client side) can invoke a method on object present in another JVM.

3. RMI creates a public remote server object that enables client server communication through simple method call on server method

4. Client - server communication handled by 2 intermediate objects -
   i) stub object (client side)
   ii) skeleton object (server side)

- **Stub object :**

1. It builds an information block and sends the information to server.

2. The block consists of -
   i) An id of remote object to be used.
   ii) Method name which is to be invoked
   iii) Parameters to remote JVM.

- **Skeleton object :**

1. It passes the request from stub object to remote object

2. It performs the following tasks -
   i) calls desired method on real object
   ii) forwards the parameter received from stub object

- Steps in RMI implementation :
1. Defining remote interface
2. Implementing the remote interface
3. Creating stub and skeleton object from implementation class using RMIC.

4. Start rmiregistry
5. Create and execute server application program
6. Create and execute client application program.

* Conclusion → Thus, in this assignment we learnt about distributed applications, and developed a client - server program based on Java RMI.