# Distributed Systems 600089 Student ID: 201601620 Date: **August 3, 2020** Deadline: Monday 3rd August 2020 by 2pm

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# What does an API do?

APIs (application program interface) are routines, protocols and tools put together for building software applications. An API is a guide to software components on how to interact and helps to bridge interaction between different software.

# Brief Explanations

## Route Mapping

Route mapping is when the framework tries to match the segments in the URI path to the template. Literals in the template must match exactly. A placeholder matches any value unless constraints are set. The framework does not match other parts of the URI, such as the host name or the query parameters. The framework selects the first route in the route table that matches the URI. The URL contains special placeholders"{controller}" and "{action}". The controller is the name of the controller being accessed and action is the name of the action being accessed.

Route mapping is where a URL path is passed into the system and it will try to follow the path along it’s route through the framework. The URL route must be exact as even a small spelling mistake can cause great issue. The URL will contain special placeholders, being the controller and the action and on occasion, if data is to be passed through, parameters may also follow suit.

## How WebAPI uses the Id parameter

## What are Actions?

# API Key use in the Project

# RSA Algorithm Steps

The RSA algorithm is used to encrypt and decrypt messages using a private and public key. The private key is used for the server to decrypt the message and the public key is used to encrypt the message. As stated by their names the key only has 1 private key (hence private) and the public key can be given to anyone who wishes to send a message (hence public).

# AES Algorithm Steps

The AES algorithm is used to encrypt and decrypt messages, however, the keys can be either 128 bits in length or 192 bits. A cypher is used to encrypt and decrypt the message using the key provided however both the sender and recipient must have the same key for it to work.

# What is the Entity Framework?

# Reflection