Assignment 5

Q1) Synchronous means in a sequence that every statement in a code gets executed in a sequence i.e. one by one.

Asynchronous means it will execute non-blocking statements which would have halt the execution when running with the sync functions.

Q2) Web APIs: they are the set of rules which helps two programs or different software to interact with each other. With the help of APIs we can send, retrieve and perform other operations on data.

Q3) setInterval: it repeatedly runs the specified code at a given interval. It is like setting a timer to perform a task at a regular interval of time.

setTimeout: here the code will run after a certain amount of time has passed. It is like the trigger of an alarm clock after certain time has passed.

Q4) We can handle asynchronous code using callbacks. Callbacks are functions that are passed as arguments to another function and are executed once a task completes.

Promises: it provides a more structured way to handle async operations. We pass resolve and reject inside the promise so that in case of event completion we trigger the resolve function and in case of failure we trigger reject function.

Async/Await: it allows the async to look like sync code and making it easier to understand the code. It is the modern approach to handle the async operations.

Q5) Callbacks are functions that are passed as arguments to another function and are executed once a task completes.

Callback Hell: it refers to a situation where the multiple callbacks are nested within each other which makes the code more complex.

Q6) Promises: it provides a more structured way to handle async operations. We pass resolve and reject inside the promise so that in case of event completion we trigger the resolve function and in case of failure we trigger reject function.

There is a **.then()** method: which is used to handle the promise in case of successful fulfilment. **.catch()** method is used to handle the promise in case of a failure**. .finally()** method is used to execute the code which regardless of promise success or failure.

Q7) Async/Await: it allows the async to look like sync code and making it easier to understand the code. It is the modern approach to handle the async operations.

When we use async keyword it means that the function is going to take time and with async keyword we always get await keyword inside the async function. If we are trying to fetch some data from the db then we type await in front of the fetch method.

Q8) Try and catch blocks are used to handle the exception. Try block is used to enclose the code that may cause the error and Catch block is used to handle that error that occurs in the try block.

Q9) Fetch: is used to make network request, to retrieve the data from a server. We fetch the data using GET request to the URL and returns a promise. Now a days we use Axios a third-party library for making HTTP request in JS.

Q10) export const deleteCategoryController =async(req,res)=>{

    try{

        const {id} =req.params

        await categoryModel.findByIdAndDelete(id)

        res.status(200).send({

            success:true,

            message:'Category deleted successfully'

        })

    }catch(error){

        res.status(500).send({

            success:false,

            message:'Error while deleting category',

            error,

        })

    }

}