1) What are microtasks? What is a microtask queue? What is their role in Promises and how are they different from callbacks?

Answer :

-> A microtask is a short function which is executed after the function or program.

-> Microtask queue is run multiple times as per event loop.

-> Promises are used to handle asynchronous operations which means only one thing can happen at a time.

-> In promises, you attach callbacks(ex:then()) on the returned promise object.where as callbacks are use to pass callback into a function.

2) Explain with examples how private, protected variables can be implemented in classes and how can they be used in subclasses?

-> how private, protected variables can be implemented in classes?

Answer:

->Private : These members are only accessible within the class that instantiated the object.

->Protected : The protected modifier acts much like the private modifier with the exception that members declared protected can also be accessed within deriving classes.

-> how can they be used in subclasses?

Answer:

->Private : When a member is marked private, it cannot be accessed from outside of its containing class. so subclass can not access private variable

->Protected : when a base class variable is protected we cannot use its variable from derived class directly.