Mongoose And Mongo Db part 1

Q1.what is the difference between mongoose and mongo dB
Ans.
Mongoose=> Mongoose is a Node.js-based Object Data Modeling (ODM) library for MongoDB.The problem that Mongoose aims to solve is allowing developers to enforce a specific schema at the application layer. In addition to enforcing a schema, Mongoose also offers a variety of hooks, model validation, and other features aimed at making it easier to work with MongoDB. Mangoose gives three major functionnality

1. Schema creation - with the help of mongoose we can create schema arcitecture
2. Model creation – with the help of mongoose we can create moel which is the refrence of collection .with the help of thid model we can acces databse in our code.
3. Schema valiation - mongoose provide the schema validation to validate the data befoe store in database

Mongodb=>MongoDB is a open source document oriented program. Classified as a NO_SQL database program, MongoDB uses json-like documents with optional schema.mongo db saves the data in document formet and the set of document is called collection in database.

Q2. why we use mongoose package?
Ans. Mongoose is allowing developers to enforce a specific schema at the application layer.
can connect with databased.
It allows to define schemas for our data to fit into,

Q3. what is the difference between mongoose schema and model
Ans. a Mongoose schema defines the structure of the document, default values, validators, etc., whereas a Mongoose model provides an interface to the database for creating, querying, updating, deleting records, etc

Q4. schema and validation we used.
Ans. Required is validation, unique is a validation.String is a schema type.

Q5. what is an object ID
Ans. An ObjectID is a unique, not null integer field used to uniquely identify rows in tables in a geodatabase. ...
Unique Id = mongo db genrates a unique id in every document wheteher user give us or not that is the benfit of mongodb

Q6.mongodb collection and mongo dB document
Ans. MongoDB stores data records as documents (specifically BSON documents) which are gathered together in collections. A database stores one or more collections of documents. set of documents is a collection

Q7.why do we need schemeless archicture.
Ans. Schemeless is designed to minimize the impact of read and write request failures of storage nodes.

Q8.what are the references in mongoose?

Ans. The ref option is what tells Mongoose which model to use during population, in our case the Story model. All _id s we store here must be document _id s from the Story model. Note: ObjectId , Number , String , and Buffer are valid for use as refs.

Q9. how to pull the document with the reference in other documents.
Ans. reference n pop.
Populate function= with the help of the populate function we can populate the ref document easily or pull the ref document in our code

Q10. Consider an example where there is a collection that contains the information about various colleges like name of the college, logo image, address, etc and there is a collection for students that study at these colleges. How will you declare a reference in this case. For example should the student be referenced in the college schema or college be referenced in a student schema?

* collection of college refer a student and student collection how we will refer a college (or)
Ans.

```
const mongoose = require('mongoose')

const collegeSchema = new mongoose.Schema({
    name: type:String   });

module.exports = mongoose.model('collegeCollection', collegeSchema)

const studentSchema = new mongoose.Schema({
    college: {type:mongoose.schema.type.objectid,
                   Ref:collegecollection} ,
    Name:{type:string}
   });
module.exports = mongoose.model('stuedentCollection', studentSchema)
```

Q11. What is NO- SQL database and give the example of no sql databse ?
Ans => NoSQL databases are databases designed to be used across large distrusted systems. They are notably much more scalable and much faster at handling very large data loads than traditional relational databases. Unlike other databases, NoSQL databases do not use the standard tabular relationships the relational databases employ. Instead, NoSQL databases allow for the querying and storage of data by a variety of other means, depending on the specific software

List of the Different NoSQL Databases

1. MongoDB
2. Cassandra
3. ElasticSearch
4. Amazon DynamoDB
5. HBase