explore date format class - simpledateformat

Assignmen 4. interview question.

1) what is Static keyword in Java.

→ Static keyword we we with method & feilds.
when we say That The feild is static that means we can not create it instance To call Them.
Static feild are directly call by ClassName.feild name.
as static feilds only have class level scope
To access outside The class we need to access with class Name.

static keyword in Java is used To indecate that a particular member belongs to the class itself rather than to instance of a class. → static can be feilds method & nested class.

Stutic & nonstutic diff.

- static belong To class. nonstatic belongs to instance
- can call without instance. call by instance only.
- can access static variable. access both static & nonstatic
& static Method directly member of class.
- can not we these or use These & super keyword
super keyword. becuse
no instance associated.

Reallife example.

Bank. — Static.
Account Number static.
deposite withdrow / nonStatic.

* what is the role of the static keyword in the context of memory management.

→ when you declare a variable or method as static it stored in method area. rather than heap.

static variable loded into memory when the class is loaded by the JVM.
only one copy is exits regardless of how many objects are created.

static member remain in memory for the life time of the class. They are not subjected to garabje collection until the class itself is unloaded.

* can static Method be overloaded & overridden in Java

→ yes static method are overriden overloded in Java.
overloading occure when multipal method have same name but different Parameter. within same class.

All instance of the class access the same static variable, so changes mode to the static variable one instance reflected in all other instances.

* what are narrowing & widining conversion in java.

→ widing conversion occure when you try to convert smaller datatype to a bigger datatype. This is done automatically by java compiler.
eg int to, long, float, double

* Narrowing conversion.
occure when you try to convert larger size datatype to smaller size datatype this is required. an explicit cast because there is a potential for data loss.
eg convert double to int float short.

* Provide example of narrowing & widening conversion between primitive data types.

→ widing → int num = 10;
double doubvalue = num; // ok
long longvalue = Num ; ok.

Narrowing = double value = 10.12;
int valInt = (int) value;
float floatval = (float) value;

* how Java Handle Potential loss of Precision during narrowing conversions?

→ Explicite when you try narrowing.
Truncation & Rounding. → fractional part is truncated.
That means fractional part removes. & value is lost.

* Explain the concept of automatic widening conversion in Java.

→ Automatic widening conversion in Java is a process where the compiler automatically converts a smaller data type to a larger data types.
This conversion is safe and does not require explicit casting

* What are the implications of narrowing & widening conversion on type compatibility & data loss.

→ in Java, Type conversion can affect both type compatibility & The Potential for data loss.

widening conversion is the Process of Converting a smaller primitive datatype into larger one. from int to float To double.
narrowing conversion. → convert larger datatype to smaller one
eg double To int. & long to short.
Here data loss. is happen.