

1. What are the errors that arise while implementing the algorithm?

ANS:

Following are the errors that arise while implementing the algorithm:

**Syntactic errors:** This error is defined as that error in which the syntax of the sequence of characters or tokens that is intended to be written in algorithm.

An algorithm will not run until the syntax errors are not corrected.

For eg: while(i=0;i<5;i++)

```
{  
    J +=I;  
}
```

**Semantic errors:** semantic error is also known as the logic error in the algorithm that causes it to operate incorrectly. It produces undesired output or other behavior although it is not immediately identified and corrected.

For eg;

```
n=0; ...;n=6;...
```

```
for(i=n;i|=5;i++)
```

```
{  
    System.out.println(i);  
}
```

2) What is API? Why it is important in effective programming? Explain the implementation procedure of API in programming?

ANS:

The computing interface which defines interactions between multiple software intermediaries is known as API also known as Application Programming interface.

API is important in order to write effective program because

Computers can manage the work rather than people while using API

API can access app components which makes the delivery of services and information more flexible

With an API an application layer can be created which can be used to distribute information and services to new audiences which can be personalized to create custom user experiences.

When access is provided to an API the content generated can be published automatically and is available for every channel, it allows it to be shared and distributes more easily.