EXCEPTIONS

- There are two most common types of bugs – Logical error and syntactic errors
  - Logical – wrong understanding of the problem
  - Syntactic – wrong understanding or implementation of the programing language used
- Sometimes programs may encounter an unusual situation at run time. They are neither logical nor syntactic errors. They are known as exceptions
- Exceptions are run-time anomalies or abnormal conditions that a program encounters during its execution
- Anomalies might include – divide by zero, access to array beyond its bound, running out of memory, etc.

EXCEPTION CONTINUED

- There are two types of exceptions:
  - a)Synchronous,
  - b)Asynchronous (Ex: which are beyond the program's control, Disc failure etc)
- Exception handling in c++ is designed to handle only synchronous
- Task involved in exception handling –
  - Find the problem (hit the exception)
  - Inform that an error has occurred (throw the exception)
  - Receive the error information(Catch the exception)
  - Take corrective actions (Handle the exception)

MECHANISM

- C++ provides following specialized keywords for this purpose.

- try: represents a block of code that can throw an exception.
- catch: represents a block of code that is executed when a particular exception is thrown.
- throw: Used to throw an exception. Also used to list the exceptions that a function throws, but doesn't handle itself.