

Assignment 3

Friday, June 22, 2018

1:12 PM

Tania Akter
V00810640

6.1

```
void func() {  
    initialize(); // perform initialization  
    do_work(); // do some work  
    cleanup(); // perform any necessary cleanup  
}
```

It is not exception safe. Because if *do_work()* throws an exception, *cleanup()* is never called and cleanup operation is not performed, which may cause resource leak.

6.2

- a) die3, die, countdown, hello, i, bjarne, herb, dv, u, z
- b) s

6.3

- a. Func() can throw while allocating memory for buf1 and buf2, and it is not handled. The allocate memory parts should be in try-catch block.
- a. It can throw during saving formatting flag or restoring formatting flags. It can also throw during the print statement in line 11. The entire function body should be kept in a try-catch block, or use RAII.
- b. Put() can throw an exception since `std::deque::push_back` may throw still throw an exception. The function body should be kept in a try-catch block.

6.5

analyze() does not throw exception because it has nothrow guarantee with *noexcept*.

doWork() may throw exception because it does not have the *noexcept* filter. Moreover, while passing the argument *globalThing*, since it is not a built in type, copy/move constructor is called, which may throw, causing *doWork()* to throw.