1a)
An operating system is the software which supports a computer's hardware and softwar
e. It handles tasks such as running programs, managing files, providing a user inter
face, and so on. Some examples of operating systems are Windows, MacOS, IOS, and And
roid.

1b)
The kernel is the core component of an operating system that manages the communicati
on between the hardware and software. It makes sure that different parts of a comput
er such as the CPU and memory are used efficiently.

1c)
In the Unix operating system, the shell is a program that acts as a bridge between t
he user and kernel in the form of an interface. It reads and executes commands and i
s used to ¿communicate¿ with the operating system. An example of a shell in Linux is
 Bash.

2.1)create two directories, df1 and df2, and two text files, tf1 and tf2.

```
mkdir df1 df2
touch tf1 tf2
```

2.2)create a text file df1.
Assuming we are in ¿/courses/cs2211/Asn/asn1/q2q3
cd df1
touch df1

2.3)In df2 (i.e. ¿/courses/cs2211/Asn/asn1/q2q3/df2), create a directory tf1.
Assuming we are in ¿/courses/cs2211/Asn/asn1/q2q3
cd df2
Mkdir tf1

2a) What command do you use to create a directory?

mkdir

2b) What command do you use to create a text file?

touch

3a) What is the result of command /usr/bin/ls df2 df1 tf2 tf1?
tf1 tf2

df1:
df1

df2:
tf1

3b) In order to see all the permissions we can use ¿-lah¿

3c)In order to see the permissions without the contents we can use ¿-dl¿ or ¿-ld¿ si
nce order does not matter

3d) Despite the ¿.¿ at the end both commands compute the same output. This is becaus
e the first command assumes the default directory while the second one explicitly st
ates the directory. In some instances adding the ¿.¿ can cause differences in the ou
tput but overall it is the same.