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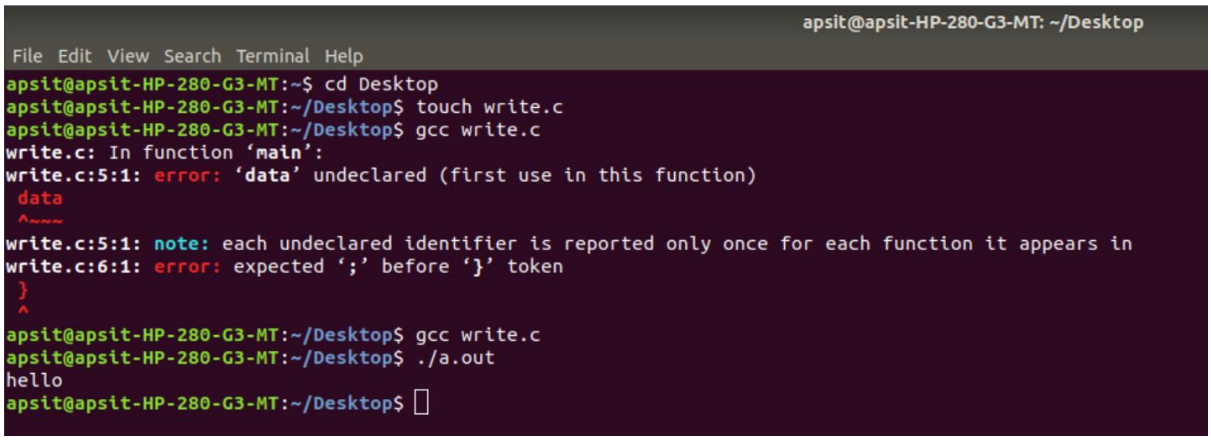
Subject: Operating System

Experiment 3

PROGRAM:

```
 #include <unistd.h>
int main()
{
write(1,"hello\n",6); //1 is the file descriptor, "hello\n" is the data, 6 is the count of characters in data
}
```

OUTPUT:



Program:

```
#include <stdio.h>
#include <unistd.h>
int main()
{
int count;
count=write(1,"hello\n",6);
printf("Total bytes written: %d\n",count);
}
```

OUTPUT:

```
File  Edit  View  Search  Terminal  Help
apsit@apsit-HP-280-G3-MT:~/Desktop$ gcc write.c
apsit@apsit-HP-280-G3-MT:~/Desktop$ ./a.out
hello
apsit@apsit-HP-280-G3-MT:~/Desktop$ gcc write.c
apsit@apsit-HP-280-G3-MT:~/Desktop$ ./a.out
hello
Total bytes written: 6
apsit@apsit-HP-280-G3-MT:~/Desktop$
```

Program:

```
#include <unistd.h>
int main()
{
char buff[20];
 read(0,buff,10);//read 10 bytes from standard input device(keyboard), store in
//buffer (buff)
write(1,buff,10);//print 10 bytes from the buffer on the screen }
```

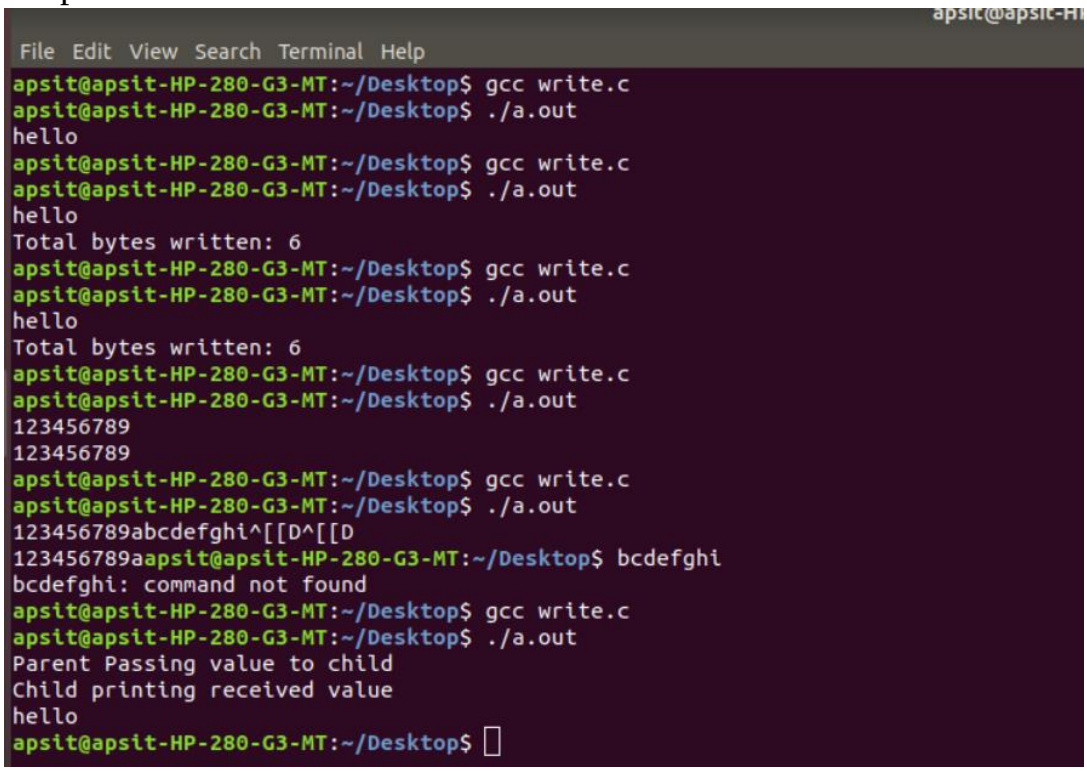
Output:

```
apsit@apsit-HP-280-G3-MT:~/Desktop$ gcc write.c
apsit@apsit-HP-280-G3-MT:~/Desktop$ ./a.out
123456789
123456789
apsit@apsit-HP-280-G3-MT:~/Desktop$ gcc write.c
apsit@apsit-HP-280-G3-MT:~/Desktop$ ./a.out
123456789abcdefghi^[[D^[[D
123456789aapsit@apsit-HP-280-G3-MT:~/Desktop$ bcdefghi
bcdefghi: command not found
apsit@apsit-HP-280-G3-MT:~/Desktop$
```

Program:

```
#include<stdio.h>
 #include <unistd.h>
#include <signal.h>
#include <stdlib.h>
int main()
 {
int fd[2],n;
char buffer[100];
pid_t p; pipe(fd); //creates a unidirectional pipe with two end fd[0] and fd[1]
 p=fork();
 if(p>0) //parent
{
printf("Parent Passing value to child\n"); write(fd[1],"hello\n",6); //fd[1] is the write end of the pipe
} else // child
 { printf("Child printing received value\n"); n=read(fd[0],buffer,100); //fd[0] is the read end of the pipe write(1,buffer,n);
 }
 }
```

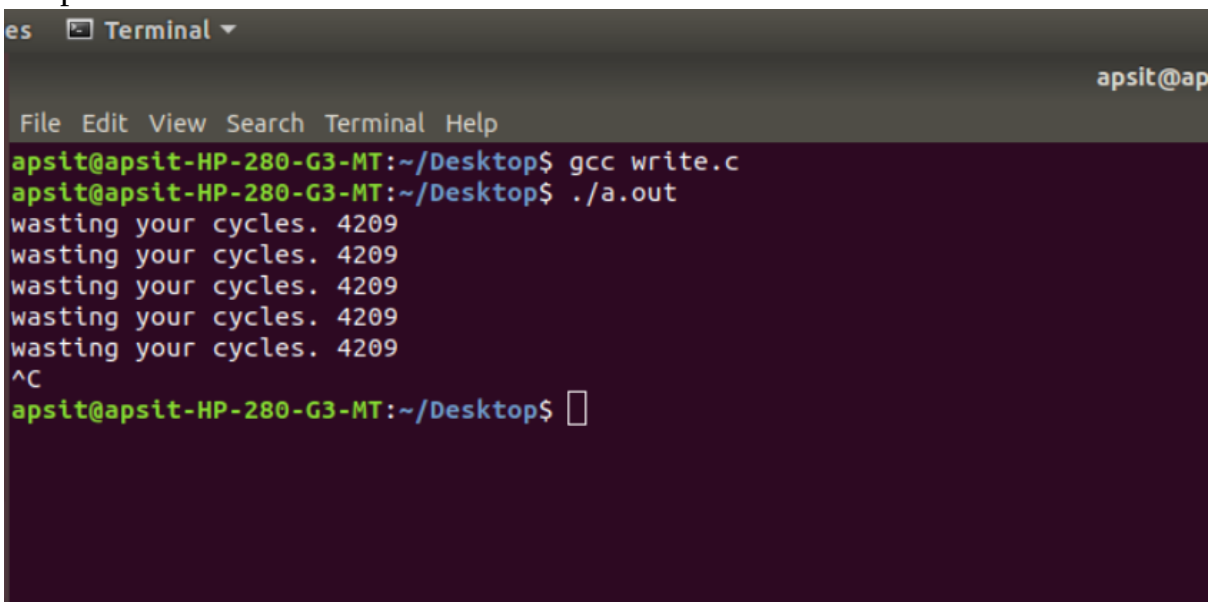
Output:



Program:

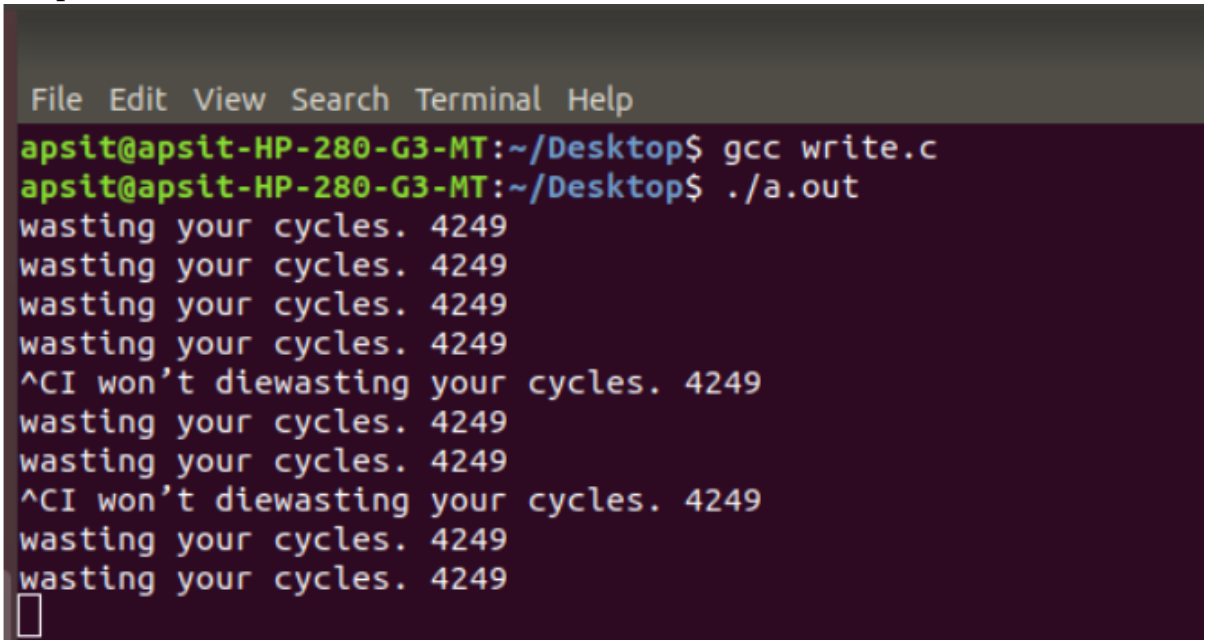
```
#include<stdio.h>
 #include <unistd.h>
#include <signal.h>
#include <stdlib.h>
int main()
{
while(1)
 {
printf("wasting your cycles. %d\n", getpid());
sleep(1);
}
}
```

Output:



Program:

```
#include<stdio.h>
 #include <unistd.h>
#include <signal.h>
#include <stdlib.h>
void handler(int num)
{
write(STDOUT_FILENO, "I won’t die!\n",13);
 }
 int main()
{
```

```
 signal(SIGINT, handler);
 while(1)
 {
printf("wasting your cycles. %d\n", getpid()); sleep(1);
}
}
```

Output: