

```
/******  
*****(Q1)
```

```
    Create 3 threads.  
    1st thread displays 'Hello world'  
    2nd thread displays 'Hello India'  
    3rd thread "Hello MCIS Manipal"
```

```
*****  
*****/
```

```
#include <sys/types.h>  
#include <unistd.h>  
#include <stdio.h>  
#include <pthread.h>
```

```
void* f1(void*);  
void* f2(void*);  
void* f3(void*);
```

```
pthread_t  t1, t2, t3;
```

```
int main()  
{
```

```
    pthread_attr_t a;
```

```
    printf("Main: My pid is %d\n\n", getpid());  
    pthread_attr_init(&a); /* get the default thread attributes into  
a;  
    default attributes include stack size, priority, scheduling  
information and others */
```

```
    printf("\n");
```

```
    pthread_create(&t1,&a,f1,NULL);  
    pthread_create(&t2,&a,f2,NULL);  
    pthread_create(&t3,&a,f3,NULL);
```

```
    pthread_join(t1,NULL);  
    pthread_join(t2,NULL);  
    pthread_join(t3,NULL);
```

```
    printf("\nMain: All threads have finished executing...\n\n");  
    return 0;
```

```
}
```

```
void* f1(void* p1)
```

```
{
    sleep(2);
    printf("Thread 1: Hello world.\n");
    printf("Thread 1: My thread id is %lu\n", pthread_self());
    pthread_exit(0);
}
```

```
void* f2(void* p1)
{
    printf("Thread 2: Hello India.\n");
    printf("Thread 2: My thread id is %lu\n", pthread_self());
    pthread_exit(0);
}
```

```
void* f3(void* p1)
{
    printf("Thread 3: Hello MSIS, Manipal \n");
    printf("Thread 3: My thread id is %lu\n", pthread_self());
    pthread_exit(0);
}
```