OS Activity 5

Member

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1.)

```c
#include <stdio.h>
#include <pthread.h>
#include <unistd.h>
void *say_hello(void *data){
    char *str;
    str = (char *)data;
    while (1)
    {
        printf("%s\n", str);
        sleep(1);
    }
}
void main(int argc, char *argv[]){
    pthread_t t1, t2;
    if(argc!=3){
        printf("usage : labthread1 arg1 arg2\n");
        return ;
    }

    char *av[10];
    for(int i=1;i<argc;i++){
        av[i-1]=argv[i];
    }

    pthread_create(&t1, NULL, say_hello, av[0]);
    pthread_create(&t2, NULL, say_hello, av[1]);
    pthread_join(t1, NULL);
    pthread_join(t2, NULL);
}
```

```
theepob@BBIdea3:/mnt/c/Users/BBB/Desktop/OS_activity/Act5$ ./act5_1 cp chula
cp
chula
cp
chula
cp
chula
cp
chula
```

2.

```c
#include <stdio.h>
#include <pthread.h>
#include <unistd.h>
void *say_hello(void *data)
{
    char *str;
    str = (char *)data;
    printf("This is thread %s\n", str);
}
void main()
{
    pthread_t t[10];
    char *str[] = {"1","2","3","4","5","6","7","8","9","10"};
    for(int i=0;i<10;i++){
        pthread_create(&t[i], NULL, *say_hello,str[i]);
    }
    for(int i=0;i<10;i++){
        pthread_join(t[i], NULL);
    }
}
```

```
theepob@BBIdea3:/mnt/c/Users/BBB/Desktop/OS_activity/Act5$ ./act5_2
This is thread 1
This is thread 2
This is thread 4
This is thread 3
This is thread 7
This is thread 6
This is thread 5
This is thread 8
This is thread 9
This is thread 10
theepob@BBIdea3:/mnt/c/Users/BBB/Desktop/OS_activity/Act5$ ./act5_2
This is thread 1
This is thread 2
This is thread 6
This is thread 8
This is thread 4
This is thread 5
This is thread 7
This is thread 3
This is thread 10
This is thread 9
theepob@BBIdea3:/mnt/c/Users/BBB/Desktop/OS_activity/Act5$
```

3.

```c
#include <stdio.h>
#include <pthread.h>
#include <unistd.h>
void *say_hello(void *data){
    char *str;
    str = (char *)data;
    printf("%s\n", str);
}
void main()
{
    pthread_t t1, t2, t3, t4;
    pthread_create(&t1, NULL, say_hello, "First thread from parent process");
    pthread_create(&t2, NULL, say_hello, "Second thread from parent process");

    pid_t pid = fork();
    if (pid != 0) {
        return ;
    }
    else {
        pthread_create(&t3, NULL, say_hello, "First thread from child process");
        pthread_create(&t4, NULL, say_hello, "Second thread from child process");
    }

    pthread_join(t1, NULL);
    pthread_join(t2, NULL);
    pthread_join(t3, NULL);
    pthread_join(t4, NULL);
}
```

```
theepob@BBIdea3:/mnt/c/Users/BBB/Desktop/OS_activity/Act5$ ./act5_3
Second thread from parent process
First thread from parent process
Second thread from child process
First thread from child process
theepob@BBIdea3:/mnt/c/Users/BBB/Desktop/OS_activity/Act5$ ./act5_3
Second thread from parent process
First thread from parent process
First thread from child process
Second thread from child process
theepob@BBIdea3:/mnt/c/Users/BBB/Desktop/OS_activity/Act5$ ./act5_3
First thread from parent process
Second thread from parent process
Second thread from child process
First thread from child process
theepob@BBIdea3:/mnt/c/Users/BBB/Desktop/OS_activity/Act5$
```