**USP Week 4 Lab Assignments**

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| Find the output of this program.  How many processes are created in the following code snippet? Show steps in detail.  int main()  {  fork();  fork() && fork() || fork();  fork();  printf(“test\n”);  return 0;  } |
| What happens in this program if you are running the program in the following ways?  #include <stdio.h>  #include <unistd.h>  #include <stdlib.h>  int main()  {  printf(“abcd\n”);  fork();  printf(“pqrs\n”);  return 0;  }   1. Run the program as it is 2. Remove the new line in the first printf and try it 3. Re-introduce the new line in the first printf and run the program as   ./pgm > out  Check what is stored in the file out |
| Write a program in which the parent displays uppercase characters A-Z and child displays lowercase characters a-z with a delay of max of 2 seconds (try randomizing the delay) between each character. Run the program repeatedly and see if there is racing. |