

### EXAMPLE 1

**Description:** A simple sequence of five “add” instructions with no hazards.

```
ADD r1,r1,r2
ADD r3,r0,r2
ADD r4,r0,r2
ADD r5,r0,r2
ADD r6,r0,r2
```

### EXAMPLE 2

**Description:** A simple sequence of three “add” and four “nop” instructions with PIPE EXE data hazard.

```
ADD r2,r1,r3
NOP
NOP
ADD r3,r2,r1 //EXE HAZARD
NOP
NOP
ADD r1,r3,r2 //EXE HAZARD
```

### EXAMPLE 3

**Description:** A simple sequence of four “add” and one “nop” instructions with PIPE MEM data hazard.

```
ADD r2,r1,r3
ADD r4,r4,r1
NOP
ADD r3,r2,r2 // MEM HAZARD
```

### EXAMPLE 4

**Description:** A simple sequence of nine instructions with no data hazard.

```
ADD r1,r1,r1
NOP
NOP
SLT r2, r15, r1 // EXE HAZARD
NOP
NOP
BEQ r2,r0, -7 //EXE HAZARD
NOP
NOP
```

### EXAMPLE 5

**Description:** A simple sequence of eight instructions with no data hazard.

```
LW r1,0(r4)
LW r2,4(r4)
NOP
NOP
ADD r3,r1,r2
NOP
NOP
SW r3, 8(r4)
```