**M Saqib Fa16-bse-186**

Dekker’sAlgorithm

First version :

System:

Int threadNumber=1;

startThreads();

TreadT1:

Void main(){

While(!done){

While(threadNumber==2);

threadNumber==2;

}

} //end Thread1

ThreadT2:

Void main(){

While(!done){

While(threadNumber==1);

threadNumber==1;

}

}

Second version :

System:

boolean t1Inside=false;

boolean t1Inside=false;

startThreads();

TreadT1:

Void main(){

While(!done){

While(t2Inside);

t1Inside=true;

t1Inside=false;

}

} //end Thread1

ThreadT2:

Void main(){

While(!done){

While(t1Inside);

t2Inside=true;

t2Inside=false;

}

}

Third version :

System:

boolean t1WantsToEnter=false;

boolean t2WantsToEnter =false;

startThreads();

TreadT1:

Void main(){

While(!done){

t1WantsToEnter=true;

While(t2WantsToEnter);

t1WantsToEnter=false;

}

} //end Thread1

ThreadT2:

Void main(){

While(!done){

t2WantsToEnter=true;

While(t1WantsToEnter);

t2WantsToEnter=false;

}

}

Fourth version :

System:

Int favoredThread=1;

boolean t1WantsToEnter=false;

boolean t2WantsToEnter =false;

startThreads();

TreadT1:

Void main(){

While(!done){

t1WantsToEnter=true;

While(t2WantsToEnter){

If (favoredThread==2){

t1WantsToEnter=true;

}

}

favoredThread=2;

t1WantsToEnter=false;

}

}//end Thread1

ThreadT2:

Void main(){

While(!done){

t2WantsToEnter=true;

While(t1WantsToEnter){

If (favoredThread==1){

t2WantsToEnter=false;

while If (favoredThread==1)

t2WantsToEnter=true;

}

}

favoredThread=1;

t2WantsToEnter=false;

}

}