3) Write a video player application with ‘Play’, ‘Forward’ , ‘Rewind’ functionalities. Please

write pseudocode for this program and explain the design pattern you will use to develop

these three functionalities.  
  
**Ans:**I will use State design pattern (behavioral pattern) to develop these three functionalities. In State pattern, we will create objects which represent various states and a context object whose behavior varies as its state object changes.

We create a state interface.  
  
public interface State {

public void play(Context context);

public void forward(Context context);

public void rewind(Context context);

}  
  
Creating a videoplayer class:

public class VideoPlayer implements State {

public void play (Context context) {

System.out.println("Playing the video");

context.setContext(“paly”);

}

public void forward (Context context) {

System.out.println("Forwarding the video");

context. setContext (“forward”);

}

public void rewind (Context context) {

System.out.println("rewinding the video");

context. setContext (“rewind”);

}

}

Creating a Context class:  
  
public class Context {

private String state;

public Context(){

state = null;

}

public void setState(String state){

this.state = state;

}

public State getState(){

return state;}}

#Driver Class of the videoPlayer

public class VideoPlayerDriver{

public static void main(String[] args) {

Context context = new Context();

VideoPlayer videoPlayer = new VideoPlayer ();

videoPlayer. play (context);

videoPlayer. forward (context);

videoPlayer. rewind (context);

}

}

Using state design pattern we can check my players current state and do the action accordingly.