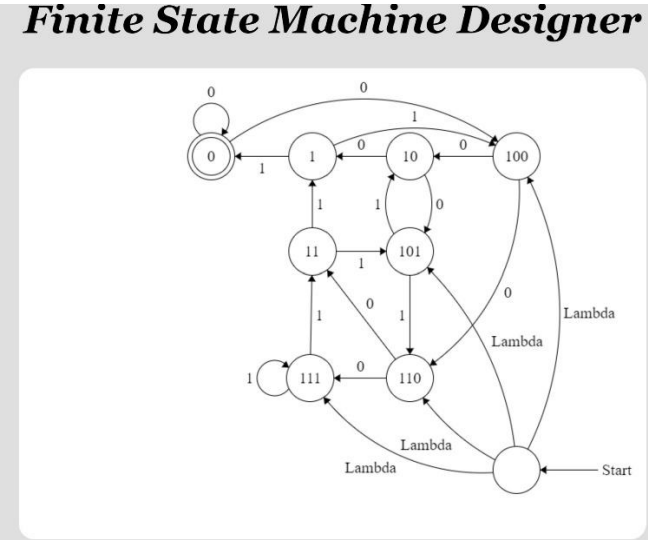
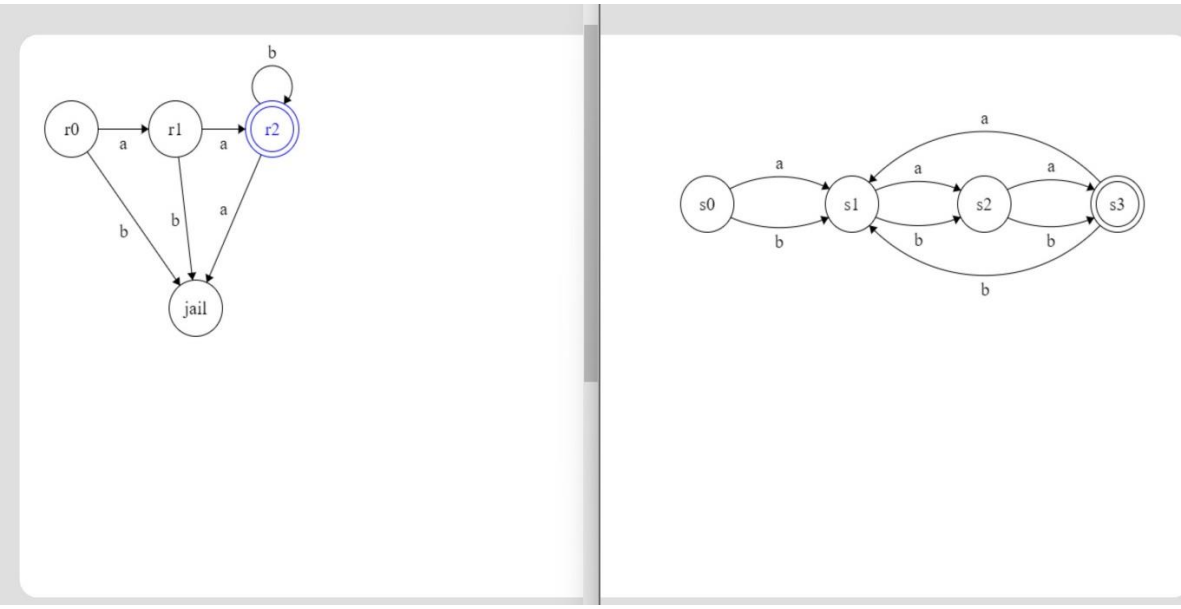
1. I connected all of the final states to a new start state, I turned the original start state into the new final state. Lastly I reversed every edge keeping all symbols the same.



2.DFAs used for product table



Product Table

State	a	b
{r0,s0}	{r1,s1}	{jail,s1}
{r1,s1}	{r2,s2}	{jail,s2}
{jail,s1}	{jail,s2}	{jail,s2}
+{r2,s2}	{jail,s3}	{r2,s3}
{jail,s2}	{jail,s3}	{jail,s3}
+{jail,s3}	{jail,s1}	{jail,s1}
+{r2,s3}	{jail,s1}	{r2,s1}
+{r2,s1}	{jail,s2}	{r2,s2}

3. All states that are accepting states from R or S or both
{r2,s2}
{jail,s3}
{r2,s3}
{r2,s2}

4. All states that are accepting states in both R and S (&&)
{r2,s3}

5. All states that are accepting states R but not in S
{jail,s3}

6. All states that are accepting states in S but not R
{r2,s2}
{r1,s1}

7. All states that are in either S or R but not both (Xor)
{r2,s2}
{r1,s1}
{jail,s3}