**TASK 2**

**Columns that may cause bias**

1. Gender
2. Senior Citizen
3. Payment Method
4. Marital Status (Partner, Dependents, Number of Dependents
5. Contract Type
6. City & State Bias & Its Impact:

**1. Gender Bias**

* **Column:** Gender
* **Potential Bias:** If gender influences churn rates, it could indicate unfair service experiences.
* **Impact:** Biased decision-making in marketing and retention strategies.

**2. Age Bias**

* **Column:** Senior Citizen
* **Potential Bias:** Older customers may churn due to digital literacy or service suitability.
* **Impact:** Overemphasis on younger customer retention could lead to age discrimination.

**3. Financial & Payment Bias**

* **Columns:** Payment Method, CLTV, Total Charges, Monthly Charges
* **Potential Bias:** Different income groups may use different payment methods or plans.
* **Impact:** Could unfairly predict churn based on financial status rather than behavior.

**4. Marital & Household Bias**

* **Columns:** Partner, Dependents, Number of Dependents
* **Potential Bias:** Assumes family structure impacts churn.
* **Impact:** Could misrepresent churn risks among single vs. married customers.

**5. Contract Type Bias**

* **Column:** Contract
* **Potential Bias:** Customers on long-term contracts may appear more loyal.
* **Impact:** Could lead to misallocation of retention resources.

**6. Geographic Bias**

* **Columns:** City, State
* **Potential Bias:** Regional differences in service quality may unfairly influence churn.
* **Impact:** Location-based biases could misguide business decisions.