Roll Dice Structure Chart
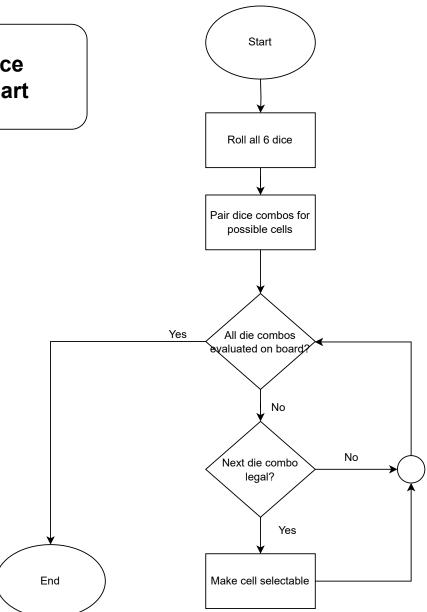
- rollDice()
  - randomInt → randomizeDice()
  - diceValues → markAllAvailableCells()
    - color, die1, die2 → getAvailableCellID()
    - cellID → markAllAvailableCells()
    - cellID, color, cellType → markCell()
      - cellID, color → cellStillPossible()
      - True/False → markCell()
        - color → countSelectedCellsInRow()
        - True/False → cellStillPossible()

Roll Dice Flowchart

Start

Roll all 6 dice

Pair dice combos for possible cells

All die combos evaluated on board?

Yes → **End**

No

Next die combo legal?

No → ○

Yes

Make cell selectable

```
┌─────────────────┐                                    ╭─────────────────────╮
│ html cell buttons│                                   │  Selecting Cells     │
└─────────────────┘                                    │  Structure Chart     │
         │ cellID                                       ╰─────────────────────╯
         ▼
┌─────────────────┐
│   toggleCell()   │
└─────────────────┘
```

cellID → toggleCell() → color

cellID, color

- cellCanBeSelected()
- toggleLock()
- updateTotal()

cellID / True/False

- isValidCell()

- updateOverallTotal()

penaltyAmount

- calculatePenalties()

Selecting Cells Flowchart

Start

Get cell ID

Both selectable and valid?

No

Yes

Mark Cell

Update Totals

End

Lock-In Cell Decisions Structure Chart

lockIn()

markPenalty

removeAvailabilityFromCells

updateOverallTotal

cellClass

removeClassFromClassList

penaltyAmount

calculatePenalties()

```
           ┌─────────┐
           │  Start  │
           └────┬────┘
                │
                ▼
           ◇ Any cells marked? ◇──No──▶ ┌───────────────┐
                │                        │ Mark Penalty  │
               Yes                       └───────┬───────┘
                │                                │
                │                                ▼
                │                        ┌───────────────┐
                │                        │ Update Totals │
                │                        └───────┬───────┘
                │                                │
                │                                ▼
                └──────────────────────▶ ┌────────────────────┐
                                          │ Remove Selectablity │
                                          │    from cells       │
                                          └──────────┬──────────┘
                                                     │
                                                     ▼
                                              ┌──────────┐
                                              │   End    │
                                              └──────────┘
```

Lock-In Cell Flowchart

Start

Any cells marked?

No

Mark Penalty

Update Totals

Yes

Remove Selectablity from cells

End