Exercise 5:

Story 1: Startup

|  |  |  |
| --- | --- | --- |
|  |  | **Variants** |
|  |  | $1.1 |
| **Conditions** | JPacman GUI is launched | Y |
| Start button has been pressed | Y |
| **Actions** | Game starts | Y |

Story 2: Move the player

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | **Variants** | | | | |
|  |  | $2.1 | $2.2 | $2.3 | $2.4 | $2.5 |
| **Conditions** | Game has started | Y | Y | Y | Y | Y |
| Pacman is next to square with pellet | Y | N | N | N | N |
| Arrow has been pressed towards that square | Y | Y | Y | Y | Y |
| Pacman is next to empty square | N | Y | N | N | Y |
| Pacman is next to cell containing wall | N | N | Y | N | N |
| Pacman is next to square with ghost | N | N | N | Y | N |
| Pacman has eaten last pellet | N | N | N | N | Y |
|  | | | | | | |
| **Actions** | Move to square | Y | Y | N | N | N |
| Remove pellet and earn points | Y | N | N | N | Y |
| Pacman dies | N | N | N | Y | N |
| Player wins | N | N | N | N | Y |
| Game is over | N | N | N | Y | Y |

Story 3: Move the Ghost

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | **Variants** | | | |
|  |  | $3.1 | $3.2 | $3.3 | $3.4 |
| **Conditions** | Game has started | Y | Y | Y | Y |
| Ghost next to empty cell | Y | N | N | N |
| Tick event occurs | Y | Y | Y | Y |
| Ghost is next to cell with pellet | N | Y | N | N |
| Ghost is on the cell with pellet | N | N | Y | N |
| Ghost is next to cell containing the player | N | N | N | Y |
|  | | | | | |
| **Actions** | Move to cell | Y | Y | N | Y |
| Move away from cell | N | N | Y | N |
| Pellet is visible | dc | N | Y | dc |
| Player dies | N | N | N | Y |
| Game is over | N | N | N | Y |

Story 4: Suspend the Game

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | **Variants** | |
|  |  | $4.1 | $4.2 |
| **Conditions** | Game has started | Y | N |
| Stop button has been clicked | Y | N |
| Game has been suspended | N | Y |
| Start button has been clicked | N | Y |
|  | | | |
| **Actions** | All moves from ghosts and player are suspended | Y | N |
| Game is resumed | N | Y |

Exercise 15: