W2D1. Solution B: Calculate relative frequency by Stripes approach.

<table>
<tr><td>INPUT</td><td colspan="2">Input Split-1</td><td>Input Split-2</td></tr>
<tr><td>Mapper Input</td><td colspan="2">
<table>
<tr><td>15 91 80 12 19 80</td></tr>
<tr><td>17 15 80 18 91 18</td></tr>
</table>
Neighbours:

N(15) = {91,80,12,19,80}
N(91) = {80,12,19,80}
N(80) = {12,19,80}
N(12) = {19,80}
N(19) = {80}
N(80) = { }

N(17) = {15,80,18,91,18}
N(15) = {80,18,91,18}
N(80) = {18,91,18}
N(18) = {91}
N(91) = {18}
N(18) = { }
</td><td>
<table>
<tr><td>19 15 80 18 91 18</td></tr>
<tr><td>18 15 18 18 80 18</td></tr>
</table>
Neighbours:

N(19) = {15,80,18,91,18}
N(15) = {80,18,91,18}
N(80) = {18,91,18}
N(18) = {91}
N(91) = {18}
N(18) = { }

N(18) = {15}
N(15) = {18,18,80,18}
N(18) = { }
N(18) = {80}
N(80) = {18}
N(18) = { }
</td></tr>
<tr><td>MAP</td><td colspan="2">Mapper-1</td><td>Mapper-2</td></tr>
<tr><td>Mapper Output</td><td colspan="2">(15, { 91:1, 80:1, 12:1, 19:1, 80:1 })
(91, { 80:1, 12:1, 19:1, 80:1 })
(80, { 12:1, 19:1, 80:1 })
(12, { 19:1, 80:1 })
(19, { 80:1 })

(17, { 15:1, 80:1, 18:1, 91:1, 18:1 })
(15, { 80:1, 18:1, 91:1, 18:1 })
(80, { 18:1, 91:1, 18:1 })
(18, { 91:1 })
(91, { 18:1 })</td><td>(19, { 15:1, 80:1, 18:1, 91:1, 18:1 })
(15, { 80:1, 18:1, 91:1, 18:1 })
(80, { 18:1, 91:1, 18:1 })
(18, { 91:1 })
(91, { 18:1 })

(18, { 15:1 })
(15, { 18:1, 18:1, 80:1, 18:1 })
(18, { 80:1 })
(80, { 18:1 })</td></tr>
<tr><td>SHUFFLE & SORT</td><td colspan="2"></td><td></td></tr>
<tr><td>Reducer Input</td><td colspan="3">(12, [{ 19:1, 80:1 }])

(15, [{ 91:1, 80:1, 12:1, 19:1, 80:1 } , { 80:1, 18:1, 91:1, 18:1 } , { 80:1, 18:1, 91:1, 18:1 } , { 18:1, 18:1, 80:1, 18:1 }])</td></tr>
</table>

	(17, [{ 15:1, 80:1, 18:1, 91:1, 18:1 }]) (18, [{ 15:1 } , { 80:1 } , { 91:1 } , { 91:1 }]) (19, [{ 80:1 } , { 15:1, 80:1, 18:1, 91:1, 18:1 }]) (80, [{ 18:1, 91:1, 18:1 }, { 18:1, 91:1, 18:1 }, { 18:1 } , { 12:1, 19:1, 80:1 }]) (91, [{ 18:1 } , { 80:1, 12:1, 19:1, 80:1 } , { 18:1 }])
REDUCE	**Reducer-1**
Reducer Output	(12, { 19: 1/2, 80: 1/2 }) (15, { 12: 1/17, 19: 1/17, 18: 7/17, 91: 3/17, 80: 5/17 }) (17, { 15: 1/5, 18: 2/5, 80: 1/5, 91: 1/5 }) (18, { 15: 1/4, 80: 1/4, 91: 2/4 }) (19, { 15: 1/6, 18: 2/6, 80: 2/6, 91: 1/6 }) (80, { 12: 1/10, 18: 5/10, 19:1, 80:1/10, 91:2/10 }) (91, { 12: 1/6, 18: 2/6, 19: 1/6, 80: 2/6 })