1

Information in the articles can be broken down or categorised into two which are processed information and unprocessed information also known as data. In reference to the article the information is used in preparation is used in the preparation for games by the staff, while data such as amount of sleep and calorie intake are considered in the preparation.

In the article data comes from a system that consists of 8 cameras installed around a stadium, said cameras capture multiple amounts of data which is then analysed and used to improve player performance. Players now do not only have access to their own stats during a match but also those of players even better than them for example number of successful passes given by Lionel Messi or number of successful tackles made by Cristiano Ronaldo. These stats are also studied in order to find ways to counter their opponents all while improving on their own skills. On the note of video analytics, the information gotten is also used to calculate how hard player collisions were and compare it to their physical stats in order to determine how much of those collisions their bodies can take thereby reducing the amount of injuries conceded by a player. In racquet sports, the racquets used in training keep track of very useful information such as: amount of spin put on a ball or amount of power used to hit the ball and the speed at which the ball travelled. This information gives insight into their abilities and how they can improve their abilities, also how they can improve on them. The information can also be downloaded onto players phones and laptops showing how accessible this information is. information collected is also vary valuable to professionals such as sports scientists and nutritionists, it helps them to make adequate diets for athletes and help predict recovery times after injuries.

Information that is collected is this useful mainly because it has certain characteristics and without these characteristics they cannot even be considered as information. Information must be precise and accurate, the information in the article is shown as accurate through the cameras that are set up and collect data as specific as 10 data points per second for every player, or 1.4 million data points per game. Information is also supposed to be timeless. when it comes to the data being collected by the cameras, different play styles and stats are collected from past players and are used extensively. Many years from when the information is collected it will remain relevant and can be used at any point in time. It is also of a very complete nature in the sense that the stats provided on a player or team are not incomplete and everything needed for studies is acquired and provided without omission.

In conclusion, Information is of high value to teams due to high income earned by winning clubs and players all this information is of high value for teams to stay at the top of their game.

2

a)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Credit number (ID) | name | Address | phone | purchase | Purchase number | Price ($) |
| 345234476 | James brown | 78 smith field | (214)356-6756 | Blue cell phone cover | 81254.1 | 24.95 |
| 345234476 | James brown | 78 smith field | (214)356-6756 | Touch screen clear overlay | 81254.2 | 14.95 |
| 345234476 | James brown | 78 smith field | (214)356-6756 | Cell phone car adapter | 81254.3 | 35.00 |
| 445334978 | Linda foster | 23-446 Roman street |  | Red tablet case | 82368.1 | 45.95 |
| 445334978 | Linda foster | 23-446 Roman street |  | Cell phone car adapter | 82368.2 | 35.00 |
| 445334978 | Linda foster | 23-446 Roman street |  | Touch screen clear overlay | 84250.1 | 14.95 |
| 886445234 | Cameron packer | 996 Blanket cove | (423)775-3445 | Black leather notebook | 83565.1 | 95.00 |

-This is not a good way of organizing data because of data repetition on the disk

**Item table ( 1st Normalized form)**

b)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Credit number (ID)** | **Purchase number** |  | **Item** | **Purchase number** | **Price** |
| 345234476 | 81254.1 |  | Blue Cell Phone Cover | 81254.1 | $24.95 |
| 345234476 | 81254.2 |  | Touch Screen Clear Overlay | 81254.2 | $14.95 |
| 345234476 | 81254.3 |  | Cell Phone Car Adapter | 81254.3 | $35.00 |
| 445334978 | 82368.1 |  | Red Tablet Case | 82368.1 | $45.95 |
| 445334978 | 82368.2 |  | Cell Phone Car Adapter | 82368.2 | $35.00 |
| 445334978 | 84250.1 |  | Touch Screen Clear | 84250.1 | $14.95 |
| 886445234 | 83565.1 |  | Black Leather Notebook Case | 83565.1 | $95.00 |

Customer table (2nd normalized form)

|  |  |  |  |
| --- | --- | --- | --- |
| Credit number (ID) | Name | Address | phone |
| 345234476 | James brown | 78 Smith field | (214)356-6756 |
| 445334978 | Linda foster | 23-446 roman Street | (204)899-6565 |
| 886445234 | Cameron packer | 996 Blanket cove | (423)775-3445 |

* It is better to store data this way because there is no duplication and if a new customer or item needs to be added to the record it can easily be added

ENTITY RELARIONSHIP DIAGRAM

A screenshot of a social media post

Description automatically generated

3

a) **REPORT**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Transaction Date** | **Customer name** | **Product purchased** | **Total sales** | **Sales amount** |
| 4/09/2017 | James Brown | Blue Cell Phone Cover | 1 | $24.95 |
| 13/09/2017 | James Brown | Touch Screen Clear Overlay | 1 | $14.95 |
| 21/09/2017 | James Brown | Cell Phone Car Adapter | 1 | $35.00 |
| **TOTAL** |  |  | **3** | **$74.9** |
|  |  |  |  |  |
| 7/09/2017 | Linda foster | Red Tablet Case | 1 | $45.95 |
| 17/09/2017 | Linda foster | Cell Phone Car Adapter | 1 | $35.00 |
| 23/09/2017 | Linda foster | Touch Screen Clear | 1 | $14.95 |
| **TOTAL** |  |  | **3** | **$95.9** |
|  |  |  |  |  |
| 30/09/2019 | Cameron Packer | Black Leather Notebook Case | **1** | **$95.00** |
| **TOTAL** |  |  | **1** | **$95.00** |

**b) Query**

|  |  |
| --- | --- |
| **Transaction date** | **Product number** |
| 4/09/2017 | 81254.1 |
| 7/09/2017 | 82368.1 |
| 13/09/2017 | 81254.2 |
| 17/09/2017 | 82368.2 |
| 21/09/2017 | 81254.3 |
| 23/09/2017 | 84250.1 |
| 30/09/2017 | 83565.1 |