

PROJECT REPORT

1.INTRODUCTION

1.1 OVERVEIW.

A data analytics about video game sales analysis.

1.2 PURPOSE.

data analytics helps individuals and organizations make sense of data.

help a business optimize its performance, perform more efficiently, maximize profit, or make more strategically-guided decisions

- 1)decision-making,**
- 2) problem solving,**
- 3) understanding,**
- 4) improving processes,**
- 5) understanding customers**

By using this project we can analyze the sales of video games in different countries in different timelines

And to find a top companies in video games.

2.PROBLEM DEFINITION &DESIGN THINKING

2.1 EMPATHY MAP.





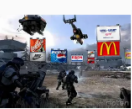
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SPECIFY THE BUSINESS PROBLEM

VIDEO GAMES SALES PROBLEMS

- LEGAL REGULATIONS**
It is challenging to talk from a legal standpoint about the gaming industry's rules and regulations. For example, it's essential to understand the difference between gaming and gambling. For gambling games and esports in general the regulations are somewhat more complicated. 
- MARKET SATURATION**
the most challenging part is the development level during which the games are created and then picked up by different operators. One of the best ways to ensure that your users stay with you is to find a website with payment options that cater to everyone's needs. Depending on the user's country, there are people who do not like to link their bank account directly to the game website or casinos gaming application, so alternative payment methods come quite handy here. 
- LOOT BOXES**
All gamers know what loot boxes are. Loot boxes are digital files that come in the form of rewards in a game. there are times when the value of the loot box is smaller than the amount the user paid for the actual loot box. This could be classified as gambling, which means that different regulations come in place but they might be redesigned in the future in order to eliminate this gambling aspect of them. 
- END USER EXPERIENCE**
many gaming companies fail to understand is that even the smallest bug or inconvenience can affect the player and their desire to continue playing that game. gaming companies must make sure that the graphic user interface is always running smoothly, that all interactions are prompt and that all data is correctly analyzed, but also enhance the end-user experience, specialists at gaming companies must determine what is it that keeps their users engaged 
- IN GAME ADS**
It's very important to make the gaming products reach precisely the people interested in what. In-game advertising is one way to do this. Thanks to data proliferation, marketers worldwide find it easier to target the right audience based on their interest levels and demographic profiles. We all have to understand that the more we target an ad, the more valuable the impression will be. 

Export PDF

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LITERATURE SURVEY ON VIDEO GAME SALES

The research outlined in this paper links to the first stage of a PhD project entitled 'Fantasy Game-Product Congruence: An Exploration of Game Advertising and UK Gamer Attitudes towards Around-game Advertising through Promotional Merchandise' (Smith, 2015). This initial phase was an SLR which is defined as being "...a transparent, comprehensive and replicable process for identifying and synthesising accessible academic research", (Smith, Sun and Mackie, 2014, p. 104). Although SLRs have been heavily used within medicine, they are a relatively new concept within business and management studies and are proving to be popular within fields such as marketing, economics and tourism (Biraghi and Gambetti, 2013; Coombes and Nicolson, 2013; Gross, Gao and Huang, 2013; Delbufalo, 2012; Tsang and Hsu, 2011; Kong and Cheung, 2009). These reviews differ from traditional literature reviews as they look to establish a replicable, transparent and rigorous search process. This not only helps the researcher to identify the majority of available literature, providing best evidence but also allow identification of unseen relationships or issues which would be difficult to establish through the more traditional review (Lettieri, Masella and Radaelli, 2009; Pittaway et al., 2004; Cook, Muldrow and Haynes, 1997).

The aim of this particular review was to identify, appraise, select and synthesise all the high quality academic research evidence related to Game Advertising within academic journals, textbooks or conference papers (see Figure 2.1) and was undertaken to facilitate a response to the research question 'How pervasive is published research in the area of Game Advertising in terms of its frequency, facet, topic and framing?'. The keywords as well as the inclusion/exclusion criteria was designed by a review team of two computing and marketing academic and two industry experts within the area of Game Advertising. The search process was originally conducted in January 2011 and then repeated in January 2014.

Liquid Web

Lifetime Console Sales

from Microsoft, Sony, and Nintendo

Console	Sales
Playstation 4	116.5
Xbox	91.4
PS3	75.9
Wii U	50.4
Playstation 2	12.2
Xbox 360	7.5

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2.2 IDEATION & BRAINSTORMING MAP.

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SOCIAL OR BUSINESS IMPACT

In 2020, there were an estimated 2.7 billion gamers worldwide, and the number is still rising. This rise in the popularity of video games has led to a significant increase in people experiencing the negative effects of video games.

Although not all gamers experience negative effects from gaming, and those effects vary from person to person, many do. Video game addiction statistics find roughly 2-3% of gamers can become clinically disordered.

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Select PDF File:

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Convert To:

Microsoft Word (*.docx)

Recognize Text in English(U.S.)

Change

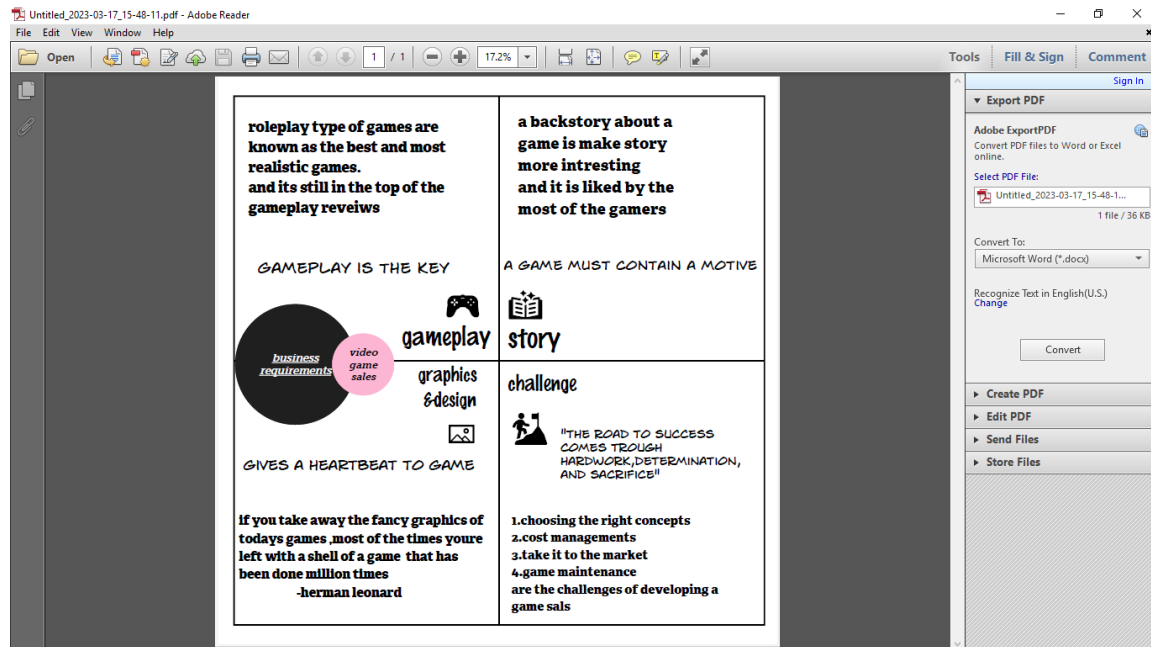
Convert

Create PDF

Edit PDF

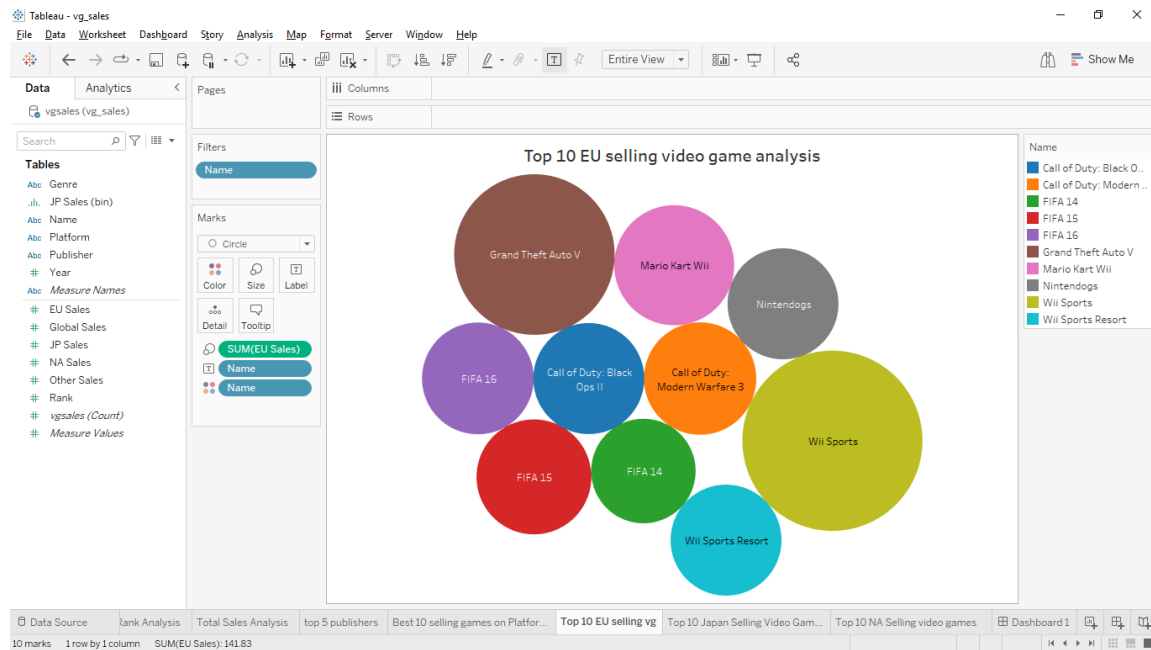
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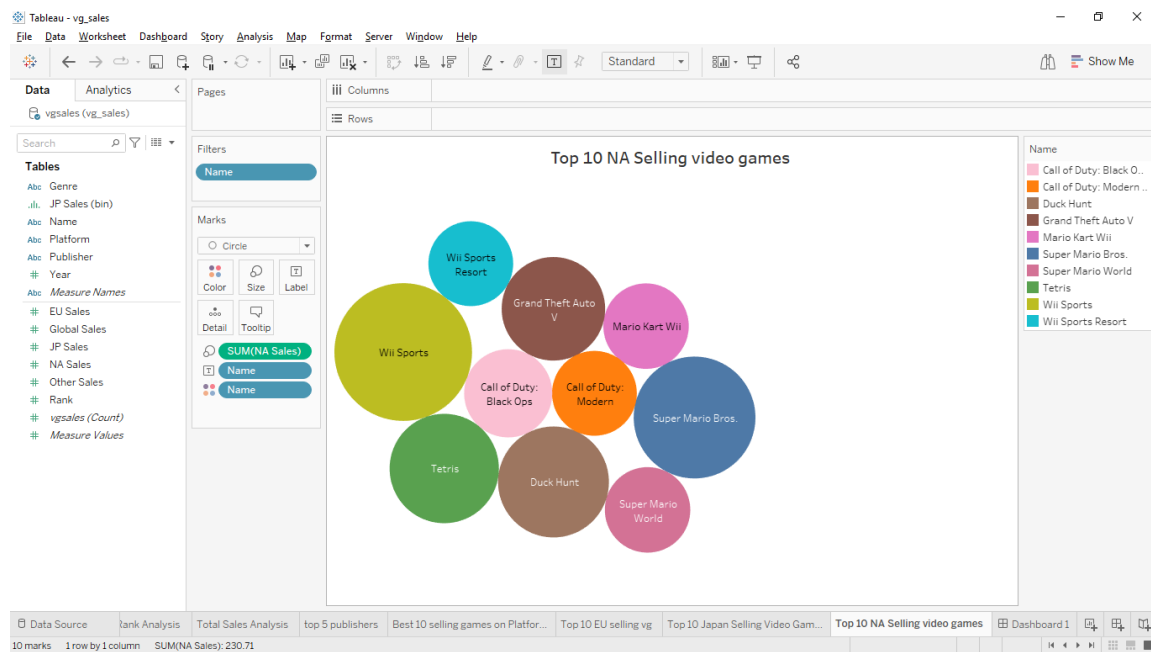
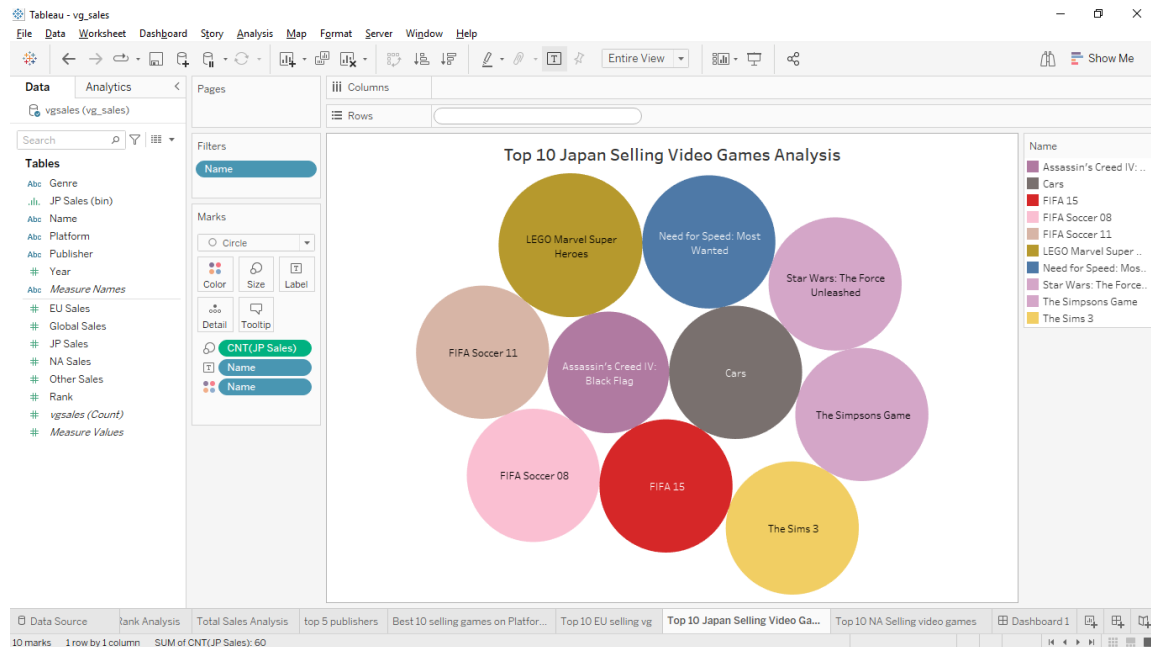
Store Files

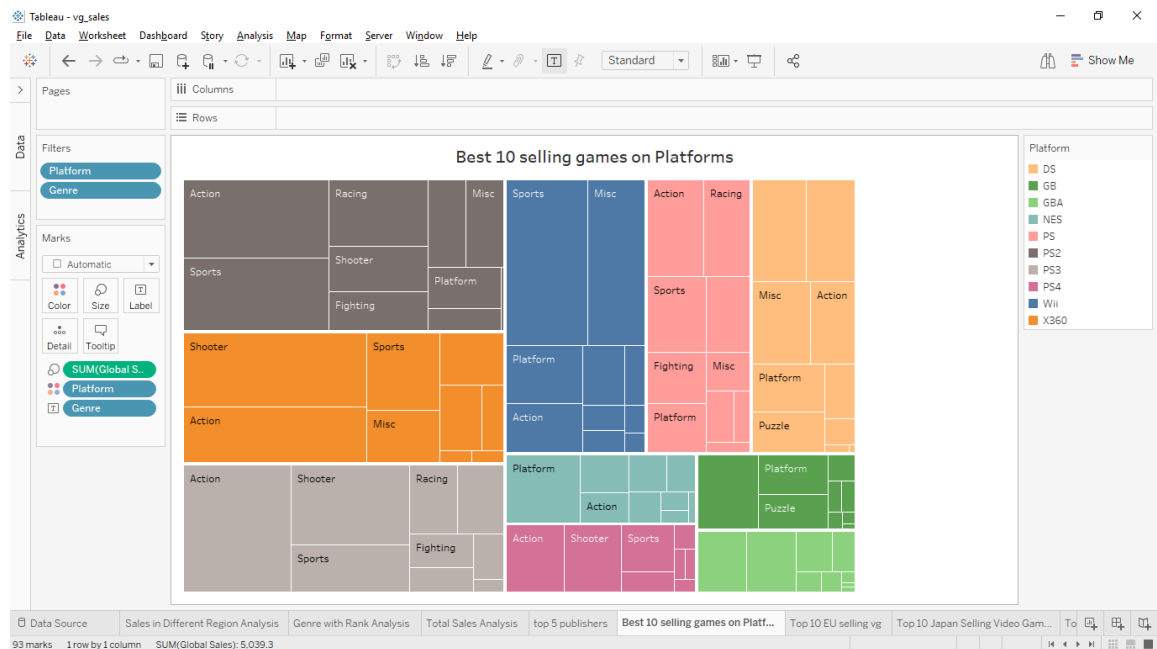


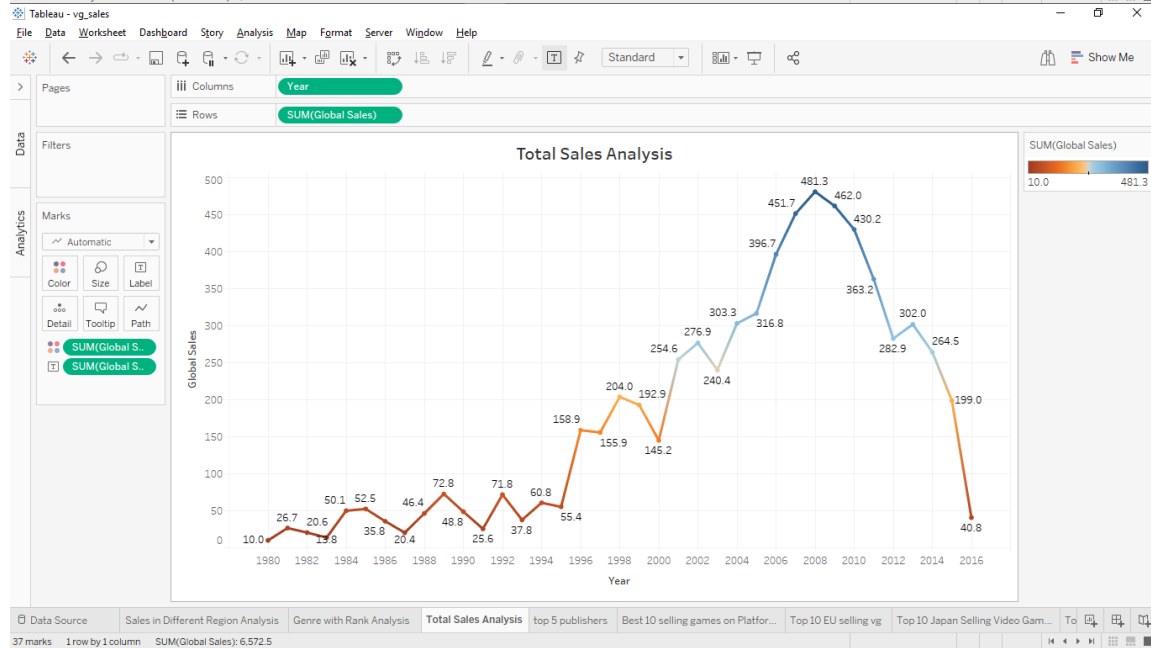
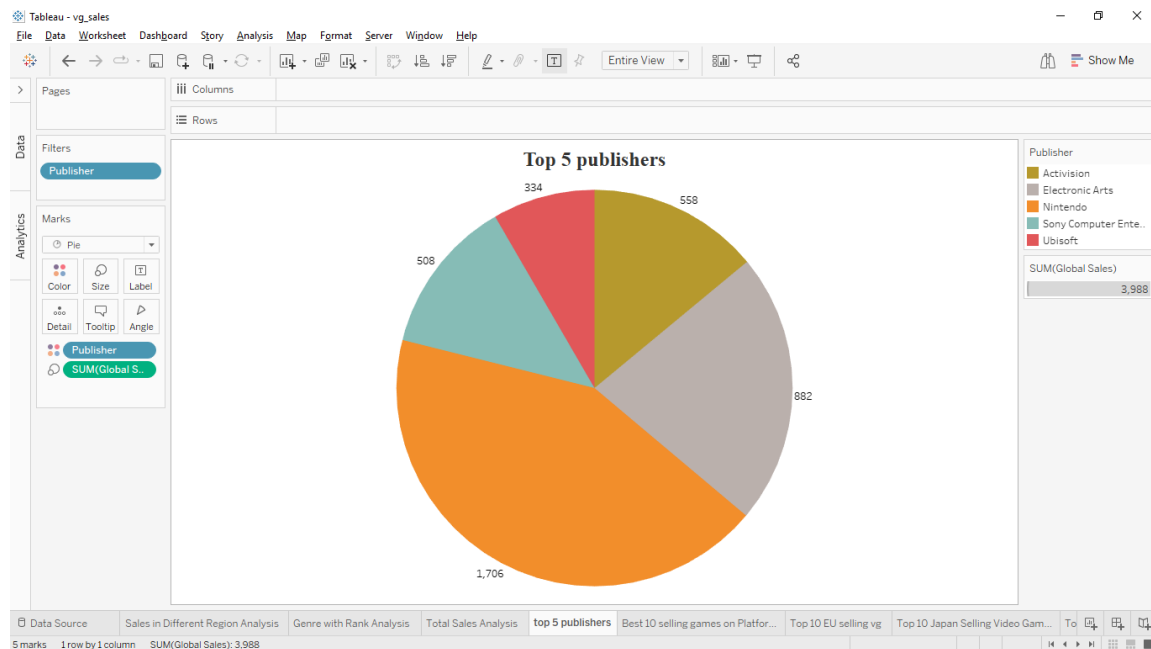
3.RESULT

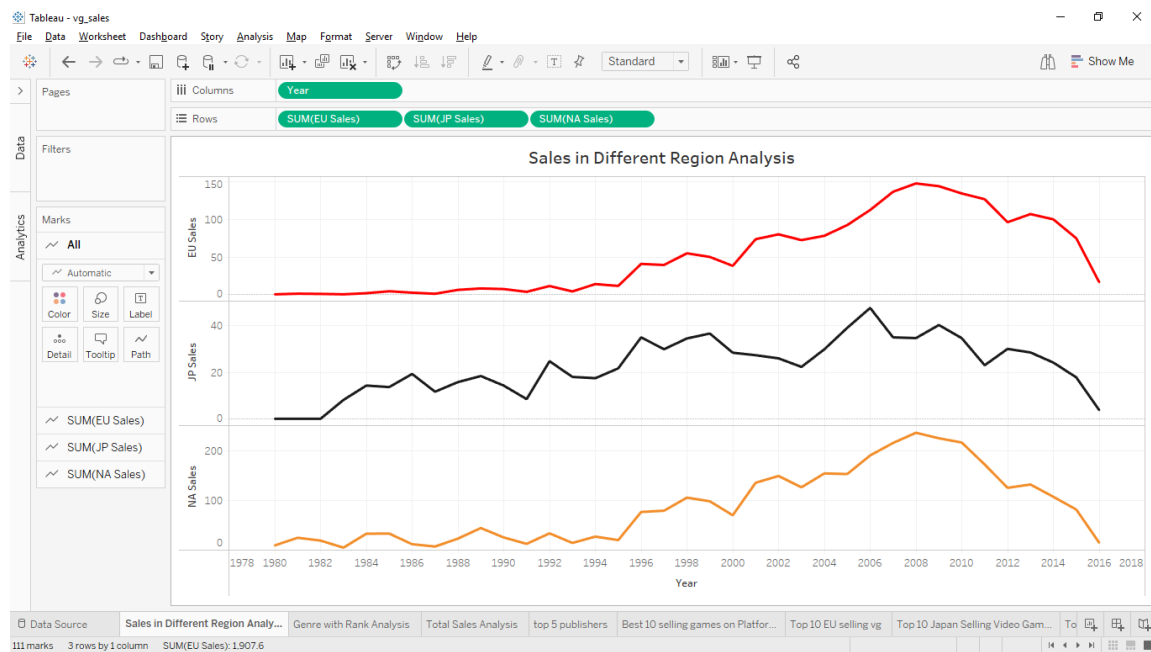
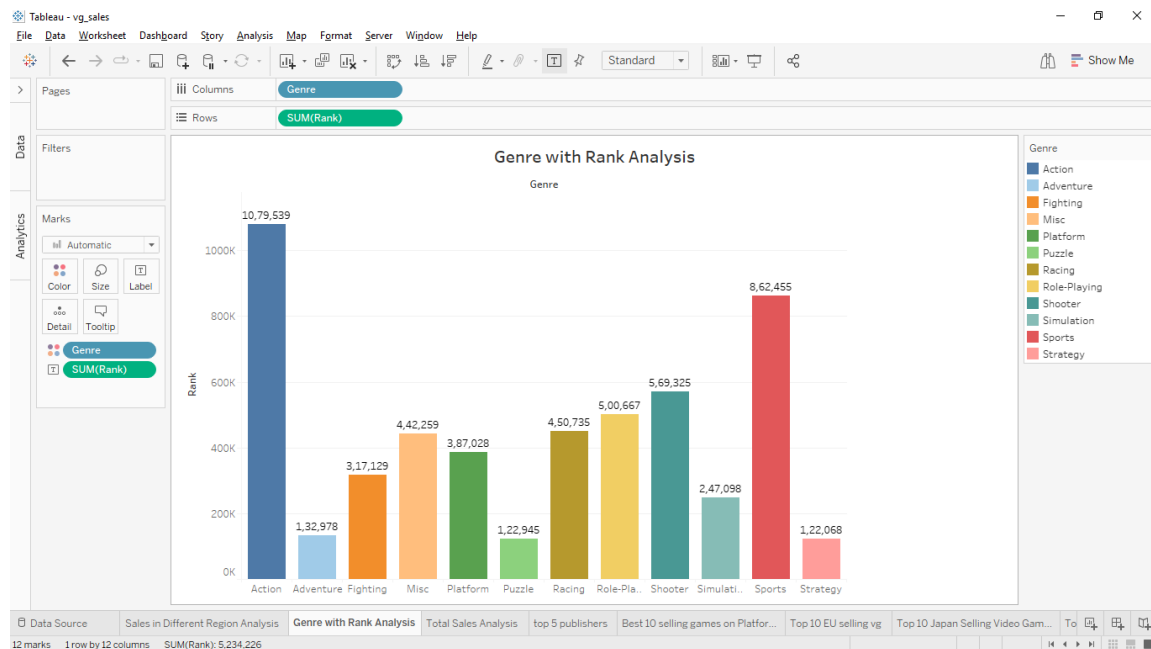
CHARTS



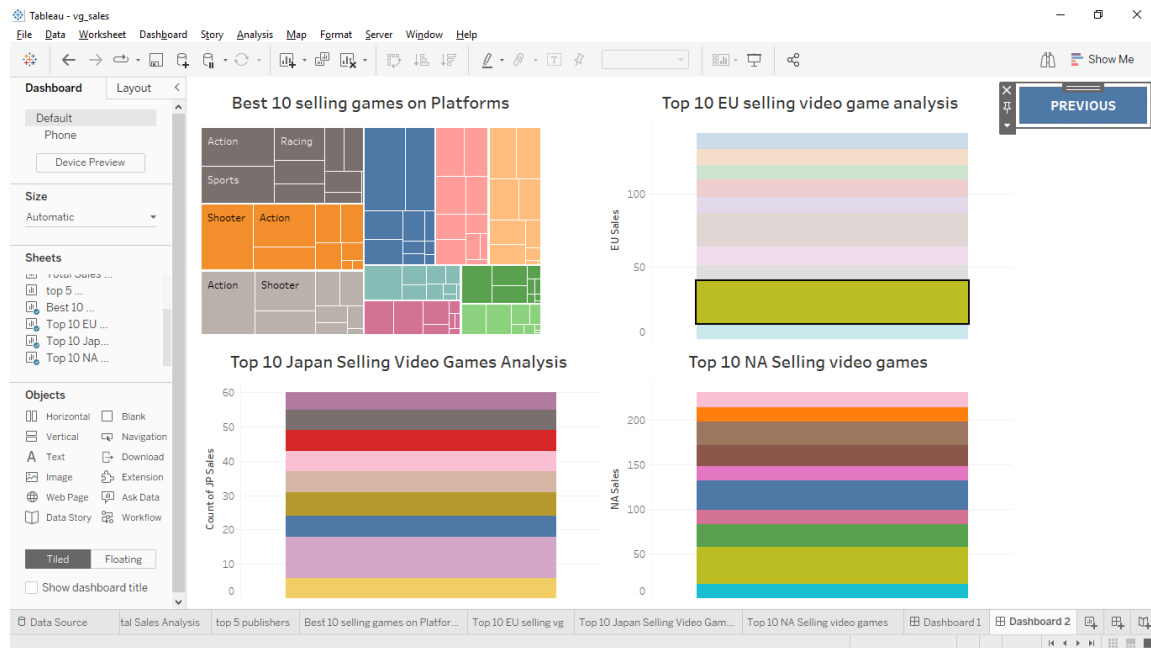
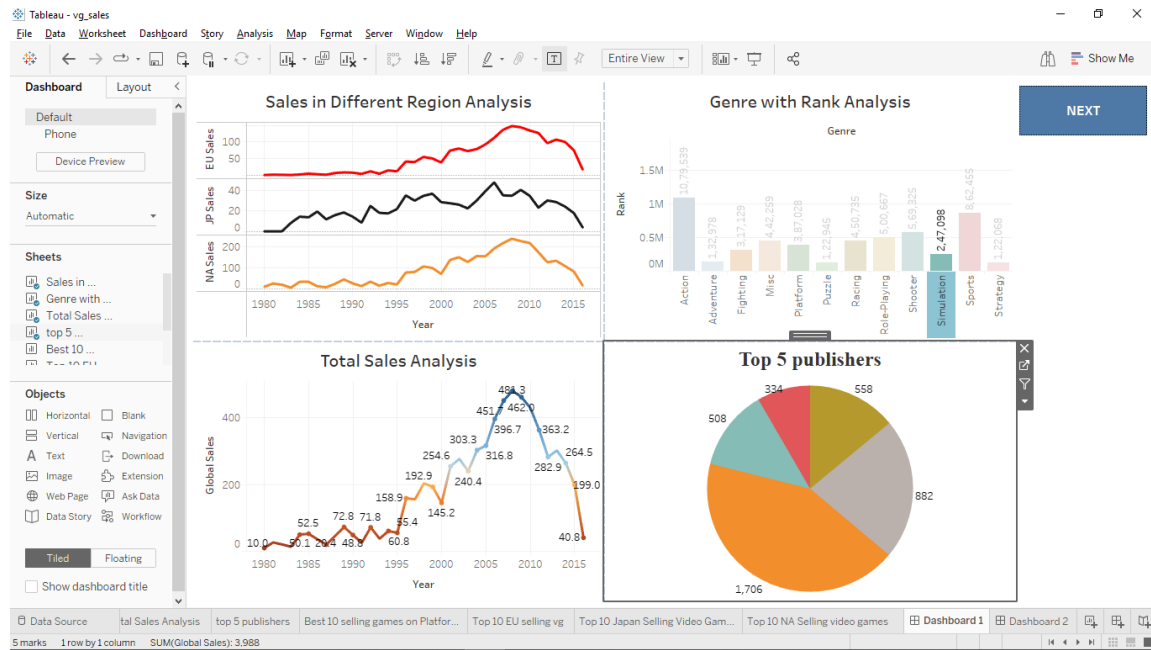




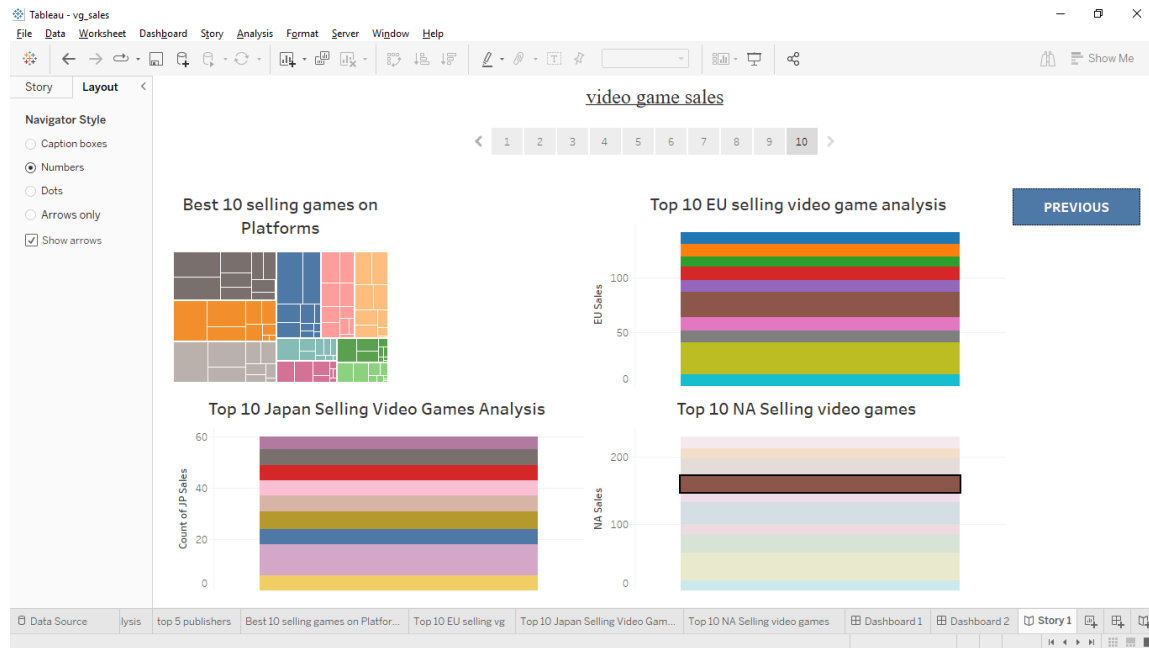




DASHBOARD



STORIES



4. ADVANTAGES & DISADVANTAGES.

ADVANTAGES:

1) Customer Analysis.

Data analytics tools play an important role in analyzing customer behavior and turning them into opportunities. The data science and analytics tools suggested that subscription-based tools help the gaming companies earn more. Various gaming companies offer subscription-based gaming models for their gaming environment. Along with that, big data analytics in game development helps the companies form the advertising techniques that can help them capture back the previous gamers and attract new ones.

2) Gaming Analytics AI

Artificial Intelligence and machine learning strategies provide real-time, actionable data insights that can help them to enhance the user experience and resolve the problems that make the users leave the platform. It also helps the game developers to provide a more personalized gaming experience for the gamers.

3) Capturing The Essence Of Fun

Fun is the synonym for the games. . The information generated with the data analytics tools helps the companies to come up with more engaging trends and technologies for the game. However, it demands close attention from the Data science service provider company to work it perfectly.

4) Customer Engagement and User Experience

The AI tools and technologies with data science can help you to understand the user behavior, the way they interact with your platform, what they like about your platform and whatnot. Along with that, these business monitoring tools help with the decision making that can drive more business and prevent the users from leaving your platform.

5) Design

The design of the gaming platform has to be attractive enough as even if you provide the most amazing graphics but can not provide a decent and engaging game design, you will fail to reach out to your potential user base. You can utilize the data analytics that can help you choose the right technologies to offer best in class animation and visual effects. Along with that, it can also help you to provide the gaming platform for the user that users expect from you

6) Development

The Data analytics tools can help you choose the development technologies, which platform to choose, what your target audience will be, what your earning strategies are, how much time it can take, and so on. Along with that, it also helps

the developers to make more informed decisions throughout the development process.

7) Monetization

Are you developing the gaming solution just for fun or for earning? Ask this question before starting anything else. If you are developing it with the purpose of earning more, you should start earning more in the least amount of time. If you can do that, then only you can consider your project a success, or it can be an example of failure for you as well as for others. There are various monetization techniques for game development, such as in-game ads, premium versions, pay to play and many others.

DISADVANTAGES:

1. Legal regulations

It is challenging to talk from a legal standpoint about the gaming industry's rules and regulations. Just like there are different types of games that are played throughout the world, specific rules and regulations follow each category of them. For example, it's essential to understand the difference between gaming and gambling, as the line between these two is often blurred, especially when competitive games are in question. Texas Holdem Poker has different regulations than other browser games that are played, for instance. On the other hand, it's essential to address the popularity of esports, which is basically a combination of sports and gaming. World tournaments in different games (such as the already mentioned League of Legends or Dota) are so popular that they are even broadcasted on national television. For these games and esports in general, the regulations are somewhat more complicated. These laws include [gambling laws, sports laws, and even laws on prize promotions](#). However, all of this depends on how the games are structured. Companies that deal with these games also have to pay attention to the rules, regulations, and limitations on sponsorships.

2. Market saturation

Suffice it to say that gaming and online gambling have become quite popular industries and a massive appetite for them. What is even more important, the appetite is going to increase even more in the future. Why is this so? Because it's relatively easy to build and launch an online casino website where you will sell your services – the most challenging part is the development level during which the games are created and then picked up by different operators. Moreover, new games are being created on a daily basis, which makes it rather challenging to pick up new users, while old games sometimes have more operators. One of the best ways to ensure that your users stay with you is to find a [website with payment options](#) that cater to everyone's needs. Depending on the user's country, there are people who do not like to link their bank account directly to the game website or casinos gaming application, so alternative payment methods come quite handy here. This is a great way to stay one step ahead of the competition by giving all users worldwide an equal chance to use your website and be a part of the experience.

3. Loot Boxes

All gamers know what loot boxes are, but you might need some clarification if you're familiarizing themselves with this industry. Loot boxes are digital files that come in the form of rewards in a game. This is something that's rather popular in practically all games, regardless of the genre, developer, or way it's played. Users very often pay high prices for loot boxes and only then get the opportunity to open them and see what they got for their games. Even though in many cases users get something convenient for their character or game per se, there are times when the value of the loot box is smaller than the amount the user paid for the actual loot box. This could be classified as gambling, which means that different regulations come in place. Another problem here is the fact that plenty of minors buy loot boxes, without realizing what they actually are. The general opinion is that loot

boxes will not disappear, but they might be redesigned in the future in order to eliminate this gambling aspect of them.

4. The End-User Experience

The pressure to retain players is very strong nowadays, and nothing should be left to chance. This is one of the reasons why gaming companies should always look to create rich, connected, and personalized experiences that users will love. This is also something that will increase the gamer's lifetime value. What many fail to understand is that even the smallest bug or inconvenience can affect the player and their desire to continue playing that game or visiting the website in question. So, gaming companies must make sure that the graphic user interface is always running smoothly, that all interactions are prompt and that all data is correctly analyzed. Apart from that, gaming companies should also worry about churn rates. Since the competition is incredibly high, the acquisition and the retention of users will significantly vary. The most important churn happens in the first couple of minutes of a game. This can sometimes be an hour – depending on the genre of the game. For example, in [NBA gaming](#) the churn happens at least after one played match. So, thinking about what to do to make users stay on the game, application, or website is one of the most burning questions. In order to do this, but also enhance the end-user experience, specialists at gaming companies must determine what is it that keeps their users engaged and what pushes players to churn.

5. Development, production, and marketing

The gaming industry market is growing rapidly, which means that the pie is getting more extensive, and everyone wants a piece of it. But because of that, all companies must invest a lot in development, production, and marketing costs. These are often very high, and it's definitely a challenge this industry has to face. But in order to create a budget for each of them, especially the first two, you have to succeed at the latter and make people come to your website or your gaming application. Targeted marketing is crucial here. It's very important to make the gaming products reach precisely the people interested in what that gaming company in question has to offer. In-game advertising is one way to do this. Thanks to data

proliferation, marketers worldwide find it easier to target the right audience based on their interest levels and demographic profiles. We all have to understand that the more we target an ad, the more valuable the impression will be.

5.APPLICATIONS.

Some of the different data analytics applications that are currently being used in several organizations across the globe are:

1. Security

Data analytics applications or, more specifically, predictive analysis has also helped in dropping crime rates in certain areas. In a few major cities like Los Angeles and Chicago, historical and geographical data has been used to isolate specific areas where crime rates could surge. On that basis, while arrests could not be made on a whim, police patrols could be increased. Thus, using applications of data analytics, crime rates dropped in these areas.

2. Transportation

Data analytics can be used to revolutionize transportation. It can be used especially in areas where you need to transport a large number of people to a specific area and require seamless transportation. This data analytical technique was applied in the London Olympics a few years ago.

For this event, around 18 million journeys had to be made. So, the train operators and TFL were able to use data from similar events, predict the number of people who would travel, and then ensure that the transportation was kept smooth.

3. Risk detection

One of the first data analytics applications may have been in the discovery of fraud. Many organizations were struggling under debt, and they wanted a solution to this problem. They already had enough customer data in their hands, and so, they applied data analytics. They used 'divide and conquer' policy with the data, analyzing recent expenditure, profiles, and any other important information to understand any probability of a customer defaulting. Eventually, it led to lower risks and fraud.

4. Risk Management

Risk management is an essential aspect in the world of insurance. While a person is being insured, there is a lot of data analytics that goes on during the process. The risk involved while insuring the person is based on several data like actuarial data and claims data, and the analysis of them helps insurance companies to realize the risk.

Underwriters generally do this evaluation, but with the advent of data analysis, analytical software can be used to detect risky claims and push such claims before the authorities for further analysis.

5. Delivery

Several top logistic companies like DHL and FedEx are using data analysis to examine collected data and improve their overall efficiency. Using data analytics applications, the companies were able to find the best shipping routes, delivery time, as well as the most cost-efficient transport means. Using GPS and accumulating data from the GPS gives them a huge advantage in data analytics.

6.CONCLUSION

By using data analytics on video game sales, we can find the sales range in different countries and customers interest and their likes & dislikes.

To develop the gaming companies.

To find the top selling games.

To see every data in a very easy visualized chart format.

7.FUTURE SCOPE

This project can be further developed by adding the current updates to video game sales globally. Additional visualization, dashboard and stories can be made for the video game sales in future. Also the websites may be updated according to the future results.

8.APPENDIX.

SOURCE CODE FOR DASHBOARD:

```
<html>
```

```
<head>
```

```
<title>DASHBOARD</title>
```

```
<body>
```

```
<br>
```

```
<h1 align="center">DASHBOARD</h1>
```



```
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href='#'><img alt='Dashboard 1 '
src='https://public.tableau.com/static/images/vg/vg_sales_1681
7220616460/Dashboard1/1_rss.png' style='border: none' /></a></noscript><object
class='tableauViz' style='display:none;'><param name='host_url'
value='https%3A%2F%2Fpublic.tableau.com%2F' /> <param name='embed_code_version'
value='3' /> <param name='site_root' value='' /><param name='name'
value='vg_sales_16817220616460/Dashboard1' /><param name='tabs' value='no'
/><param name='toolbar' value='yes' /><param name='static_image'
value='https://public.tableau.com/static/images/vg/vg_sales_16
817220616460/Dashboard1/1.png' /> <param name='animate_transition' value='yes'
/><param name='display_static_image' value='yes' /><param name='display_spinner' value='yes'
/><param name='display_overlay' value='yes' /><param name='display_count' value='yes'
/><param name='language' value='en-US' /><param name='filter' value='publish=yes'
/></object></div>      <script type='text/javascript'>          var divElement =
document.getElementById('viz1681722382505');          var vizElement =
divElement.getElementsByTagName('object')[0];          if ( divElement.offsetWidth > 800
) {
vizElement.style.width='100%';vizElement.style.height=(divElement.offsetWidth*0.75)+'px';}
else if ( divElement.offsetWidth > 500 ) {
vizElement.style.width='100%';vizElement.style.height=(divElement.offsetWidth*0.75)+'px';}
else { vizElement.style.width='100%';vizElement.style.height='1277px';}          var
scriptElement = document.createElement('script');          scriptElement.src =
'https://public.tableau.com/javascripts/api/viz_v1.js';
vizElement.parentNode.insertBefore(scriptElement, vizElement);          </script>
```

</body>

</html>

SOURCE CODE FOR STORY:

```
<html>

<head>

<title>STORY</title>

</head>

<body>

<h1 align="center">STORY</h1>

<br>

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href='#'><img alt='video game sales '
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class='tableauViz' style='display:none;'><param name='host_url'
value='https%3A%2F%2Fpublic.tableau.com%2F' /> <param name='embed_code_version'
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/></object></div>
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document.getElementById('viz1681722691881');
var vizElement =
divElement.getElementsByTagName('object')[0];
vizElement.style.width='100%';vizElement.style.height=(divElement.offsetWidth*0.75)+'px';
var scriptElement = document.createElement('script');
scriptElement.src =
```

```
'https://public.tableau.com/javascripts/api/viz_v1.js';  
vizElement.parentNode.insertBefore(scriptElement, vizElement);    </script>  
  
</body>  
  
</html>
```

SOURCE CODE FOR ENTIRE PROJECT:

```
<!DOCTYPE html>  
  
<html lang="en">  
  
<head>  
  
<title>Video Game Sales Analysis</title>  
  
<meta charset="UTF-8">  
  
<meta name="viewport" content="width=device-width, initial-scale=1">  
  
<style>  
  
* {  
  
    box-sizing: border-box;  
  
}  
  
  
/* Style the body */  
  
body {  
  
    font-family: Arial, Helvetica, sans-serif;  
  
    margin: 0;  
  
}
```

```
/* Header/logo Title */
```

```
.header {  
    padding: 80px;  
    text-align: center;  
    background: #1abc9c;  
    color: white;  
}
```

```
/* Increase the font size of the heading */
```

```
.header h1 {  
    font-size: 40px;  
}
```

```
/* Sticky navbar - toggles between relative and fixed, depending on the scroll position. It is  
positioned relative until a given offset position is met in the viewport - then it "sticks" in place  
(like position:fixed). The sticky value is not supported in IE or Edge 15 and earlier versions.  
However, for these versions the navbar will inherit default position */
```

```
.navbar {  
    overflow: hidden;  
    background-color: #333;  
    position: sticky;  
    position: -webkit-sticky;  
    top: 0;  
}
```

```
/* Style the navigation bar links */
```

```
.navbar a {  
    float: left;  
    display: block;  
    color: white;  
    text-align: center;  
    padding: 14px 20px;  
    text-decoration: none;  
}
```

```
/* Right-aligned link */
```

```
.navbar a.right {  
    float: right;  
}
```

```
/* Change color on hover */
```

```
.navbar a:hover {  
    background-color: #ddd;  
    color: black;  
}
```

```
/* Active/current link */
```

```
.navbar a.active {  
    background-color: #666;  
    color: white;
```

```
}
```

```
/* Column container */
```

```
.row {  
    display: -ms-flexbox; /* IE10 */  
    display: flex;  
    -ms-flex-wrap: wrap; /* IE10 */  
    flex-wrap: wrap;  
}
```

```
/* Create two unequal columns that sits next to each other */
```

```
/* Sidebar/left column */
```

```
.side {  
    -ms-flex: 30%; /* IE10 */  
    flex: 30%;  
    background-color: #f1f1f1;  
    padding: 20px;  
}
```

```
/* Main column */
```

```
.main {  
    -ms-flex: 70%; /* IE10 */  
    flex: 70%;  
    background-color: white;  
    padding: 20px;
```

```
}
```

```
/* Fake image, just for this example */
```

```
.fakeimg {  
  background-color: #aaa;  
  width: 100%;  
  padding: 20px;  
}
```

```
/* Footer */
```

```
.footer {  
  padding: 20px;  
  text-align: center;  
  background: #ddd;  
}
```

```
/* Responsive layout - when the screen is less than 700px wide, make the two columns stack on  
top of each other instead of next to each other */
```

```
@media screen and (max-width: 700Vidpx) {  
  .row {  
    flex-direction: column;  
  }  
}
```

```
/* Responsive layout - when the screen is less than 400px wide, make the navigation links stack  
on top of each other instead of next to each other */
```



```
@media screen and (max-width: 400px) {
```

```
  .navbar a {
```

```
    float: none;
```

```
    width: 100%;
```

```
  }
```

```
}
```

```
</style>
```

```
</head>
```

```
<body>
```

```
<div class="header">
```

```
  <h1> video game sales Analysis and Visulaisations</h1>
```

```
  <p>The video game industry is the economic sector involved with the development, marketing  
and sale of video and computer games to millions of people worldwide.</p>
```

```
</div>
```

```
<div class="navbar">
```

```
  <a href="#" class="active">Home</a>
```

```
  <a href="dashboardhtml.html">Dashboard</a>
```

```
  <a href="storyhtml.html">Story</a>
```

```
  <a href="#" class="right">About</a>
```

```
</div>
```

```
<div class="row">
```

```
  <div class="side">
```

Design

The Graphs and Charts used in here for visualisation will be more understanding at a quick glance.

Dashboard

The Dashboard that is created in the responsive and dynamic dashboard that you can use to analyze and understand more.

Story

The Narration of data based the visualization and analysis is super engaging.

VG SALES

Video game sales analysis is the process of collecting and analyzing data about the sales of video games in order to understand market trends and consumer behavior. This type of analysis can be useful for a variety of purposes, including identifying the most popular games and genres, predicting future sales, and developing marketing strategies.

```
<div class="footer">
```

```
  <h2>Contact us</h2>
```

```
</div>
```

```
</body>
```

```
</html>
```