

User Manual

Cryptocurrency Price Predictor

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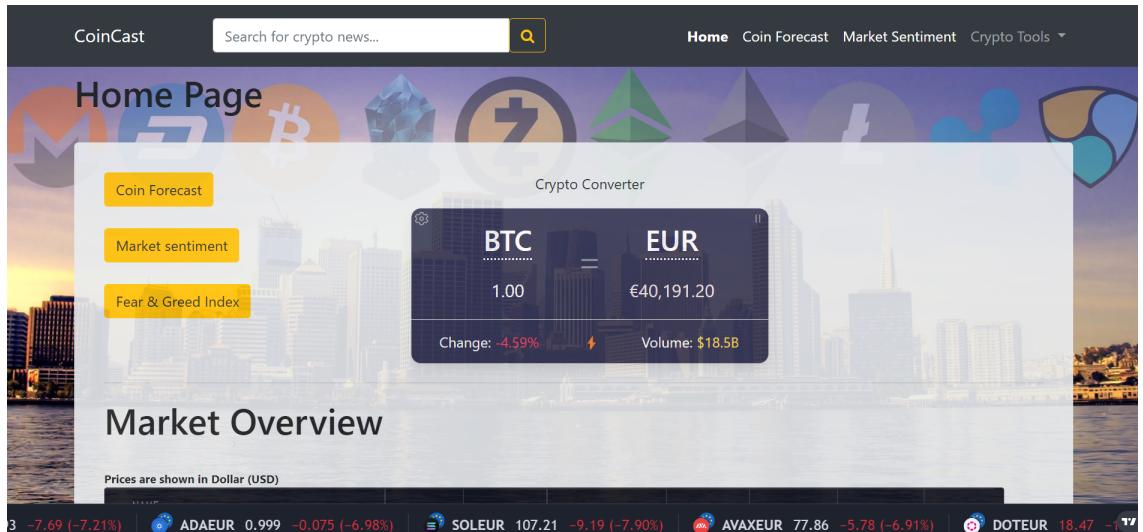
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Introduction:

The main goal of this web application is to give the user good insights into the overall market movement over their desired cryptocurrency coin. This is a walkthrough of the entire application on how it is intended to be used.

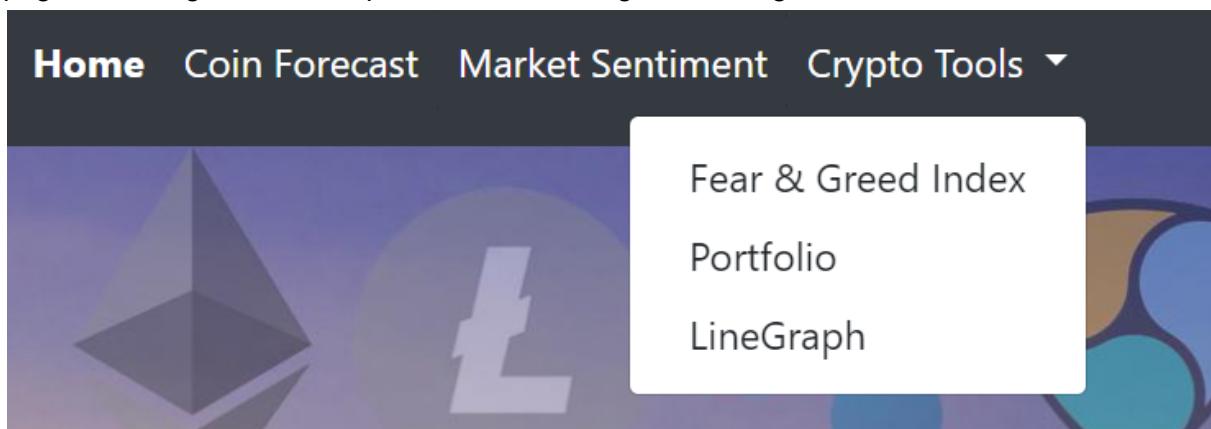
Homepage:

When the user enters the URL for the app, this is the homepage on which they will arrive on



As you can see on this page, there are many functions available to the user. Firstly in the centre of the screen, you can see a cryptocurrency converter which will allow the user to check the currency price of x amount of coins in Euro. By default, it displays the Bitcoin to Euro price conversion upon loading the page. Users can select any cryptocurrency or fiat currency they wish for the conversion tool. On this page you can see in the footer there is a coin ticker that shows the prices of each coin in real-time. The user can click on the desired coin and it will bring them to a page displaying more in-depth information about the coin.

Next, we have multiple buttons which will bring the user to different functions within the web application. We have a Coin forecast, Market sentiment, Fear and Greed, and a portfolio page. We will go more in-depth into these through the user guide.

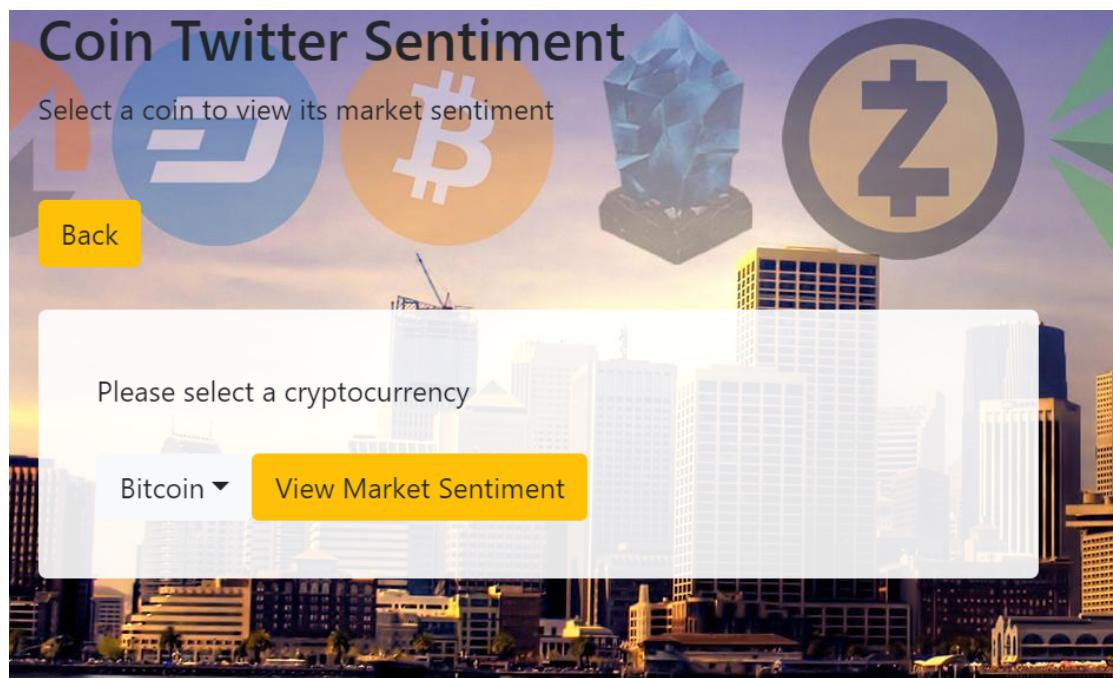


Next, we have added a Market overview GUI to allow the user to see everything that is happening around the cryptocurrency. Here is a snippet below showing the most popular coins.

NAME 839 MATCHES	MKT CAP	FD MKT CAP	LAST	AVAIL COINS	TOTAL COINS	TRADED VOL	CHG %
Bitcoin	831.994B	919.349B	43778.51	19.005M	21M	39.299B	-3.81%
Ethereum	387.575B	387.575B	3222.51	120.271M	120.271M	25.913B	-5.43%
Tether	82.424B	85.616B	1.00000000	82.424B	85.616B	91.922B	-0.01%
Binance Coin	70.356B	70.356B	426.1	1	Open LUNAUSD Chart...		2.359B
USD Coin	51.191B	51.191B	1.0000	51.191B	51.191B	5.793B	0.00%
Solana	38.208B	60.013B	117.30	325.728M	511.617M	3.282B	-7.47%
Terra	37.983B	80.813B	107.9561373	351.839M	748.574M	3.543B	-7.07%
XRP	37.343B	77.58B	0.77580	48.135B	100B	2.461B	-5.09%

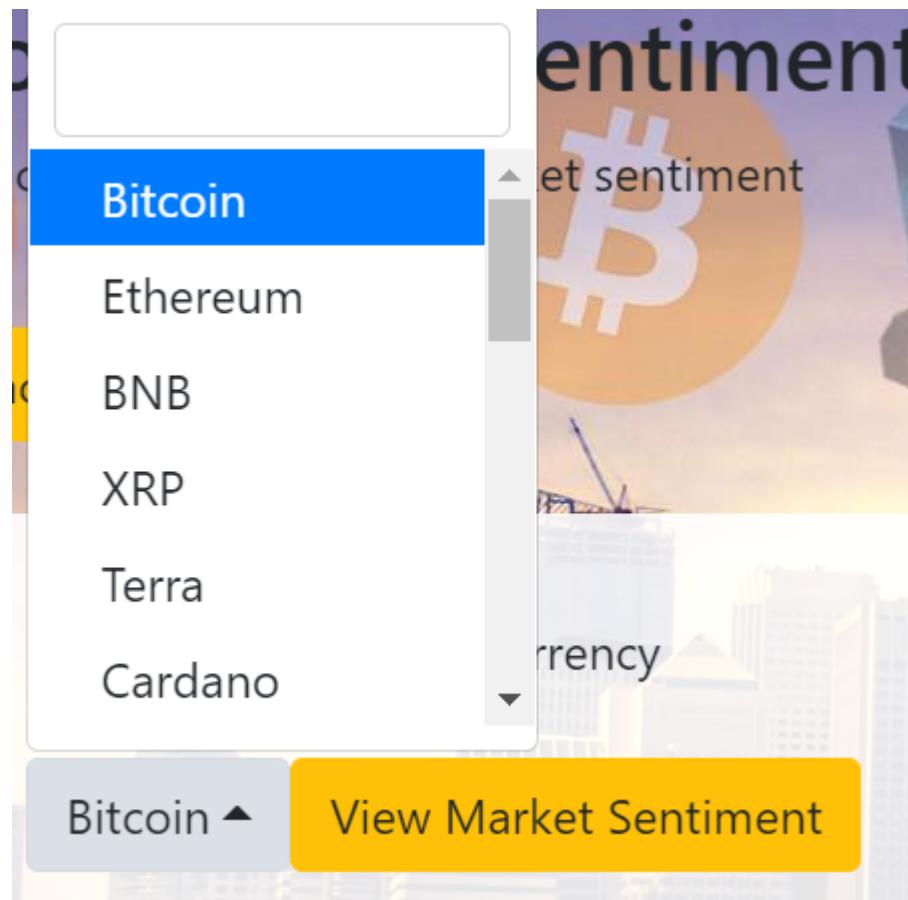
Market Sentiment:

When the user clicks on the market sentiment button they will land on this page. Here the user can either click the back button which will bring them back to the homepage or they can select the coin in which they would like to see the market sentiment based on the selection.

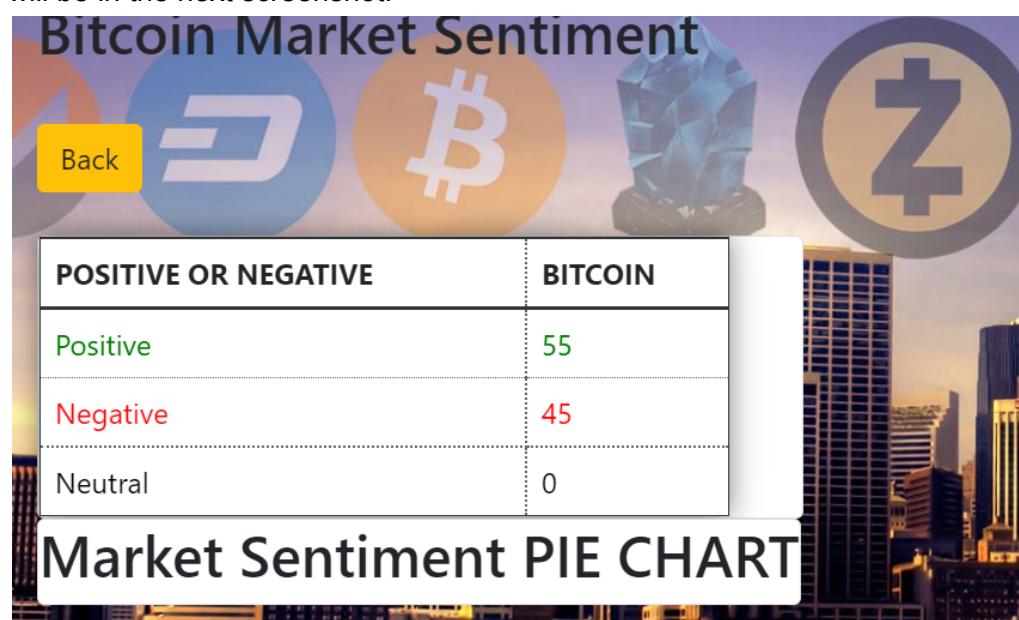


When selecting a coin the user will be able to select their desired coin from the drop-down menu that is provided to them. As you can see from the screenshot below the user can click

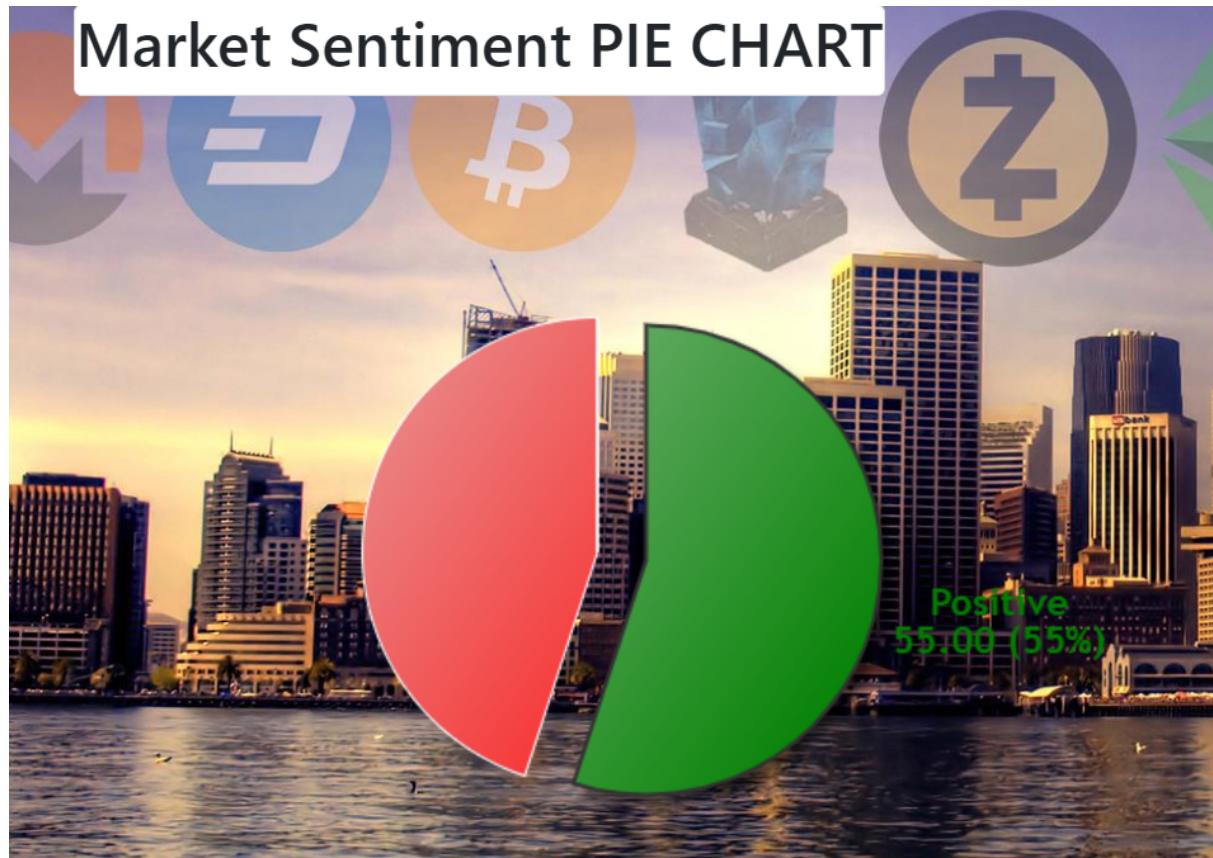
on one of the top trending coins or they can use the search bar within the dropdown to select a certain coin that they want to view.



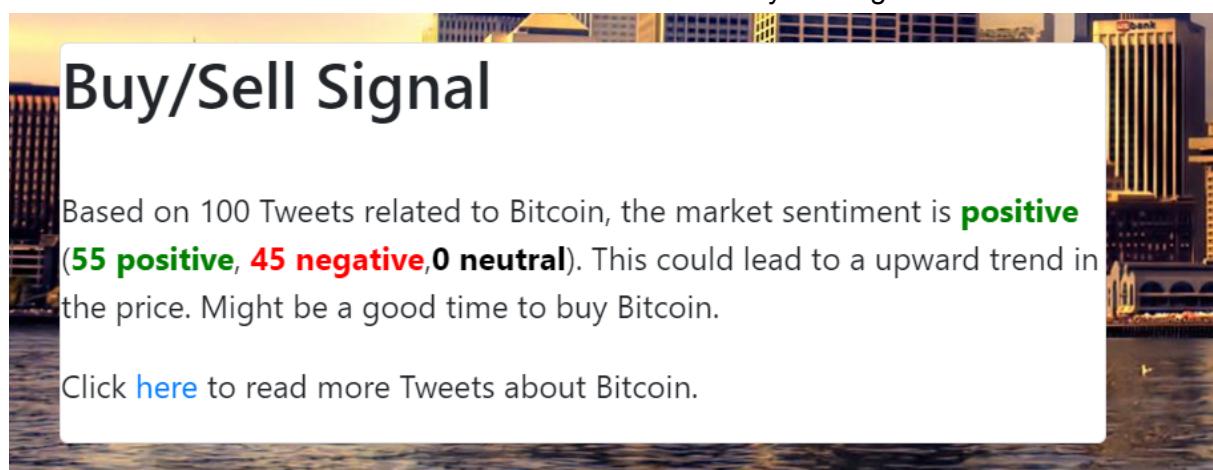
After selecting the coin they want to get the information on, they will click the "View Market Sentiment" button and will be brought to the next page. On this page, they will first see a table with the values of the positive, negative and neutral tweets. Below you can see the table with the coin they selected, 55 positive tweets in green, 45 negative tweets in red and 0 neutral tweets in black. This table is also interactive with the corresponding pie chart which will be in the next screenshot.



Here you can see the pie chart of the data that is displayed in the table above. Here you can see that the data is displayed in a pie chart. This chart is interactive with the user's mouse. When the user clicks on either segment of the chart, the piece in which they click slides out and displays beside it the corresponding amount of tweets and the percentage of the overall tweets. In this example, there are 55% positive tweets.



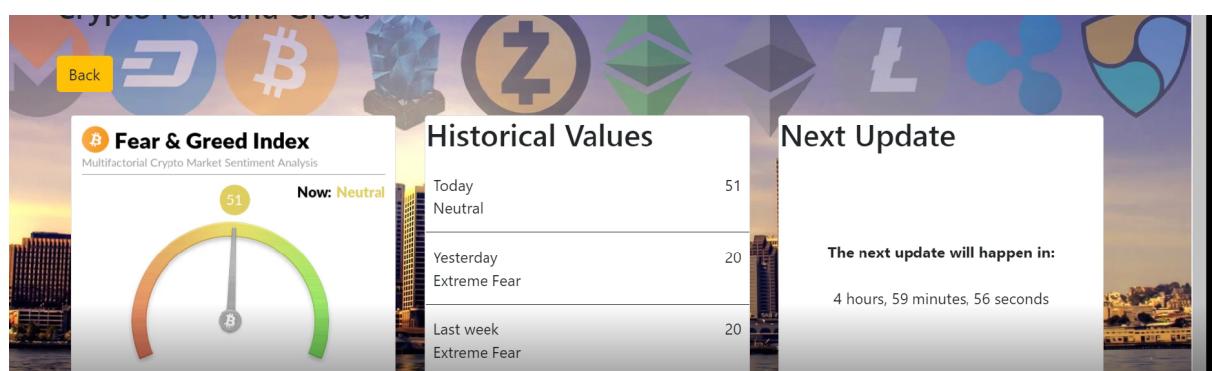
Finally, at the end of the page, you can see information about the given data. It will display in writing the synopsis of the outcome. The user will be advised based on the data given that it may or may not be a good time to buy or sell the current coin there are researching. The user will also be able to read more about the current coin by clicking the "click here" button



highlighted in blue. This will bring them to Twitter where they can find the tweets and find out more in-depth information about the market sentiment based on the selected coin.

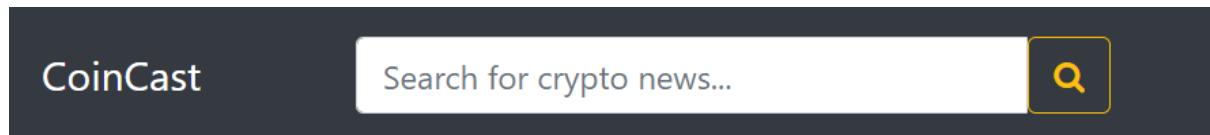
Fear and Greed:

Next from the navigation bar or the homepage the user will be able to go to the fear and greed portion of the application. This page will display a graph of the fear and greed index. This is a calculation of when the market is rising, traders under the influence of greed and FOMO (fear of lost profits) start buying up the asset and in a falling market, it's the other way around – users, driven by fear, sell off the asset en masse in an effort to minimize losses. This is a great tool for the user to understand the mood of the market on any current day. The user will also have access to the historic values of the fear and greed index. As you can see here today is neutral, yesterday had extreme fear as did last week. This chart will be automatically updated at midnight (GMT) every night.

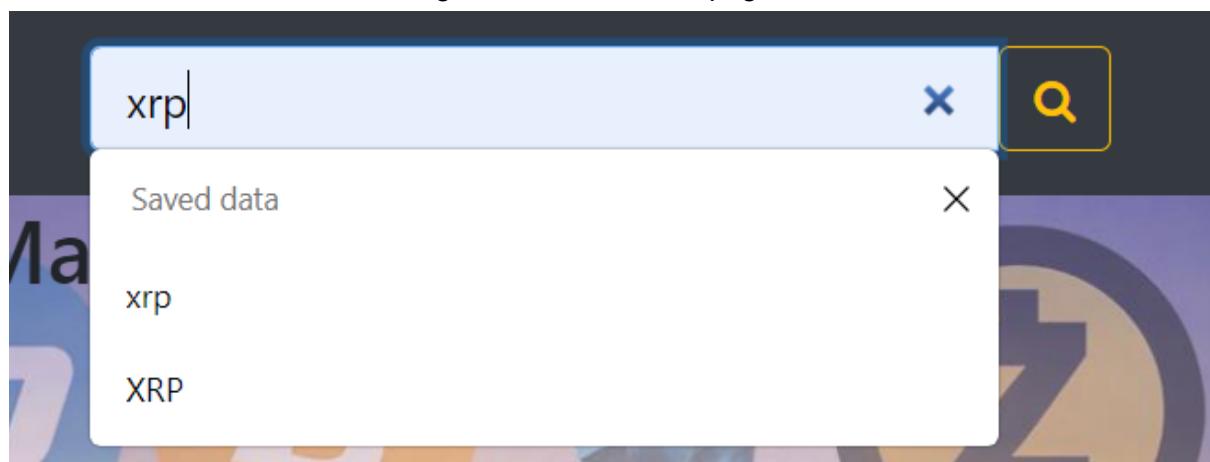


Search Bar Option:

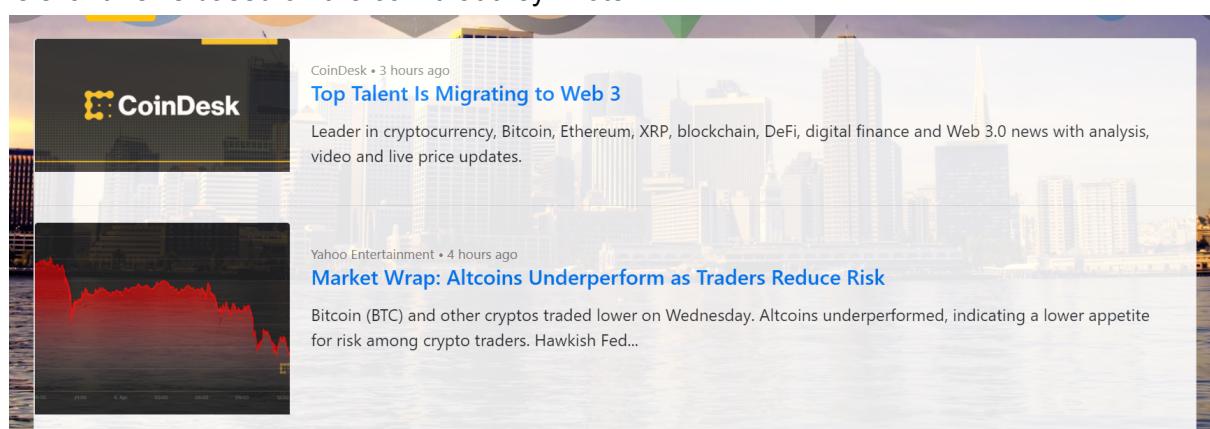
For this, the user can search in any coins that they want to get news on.



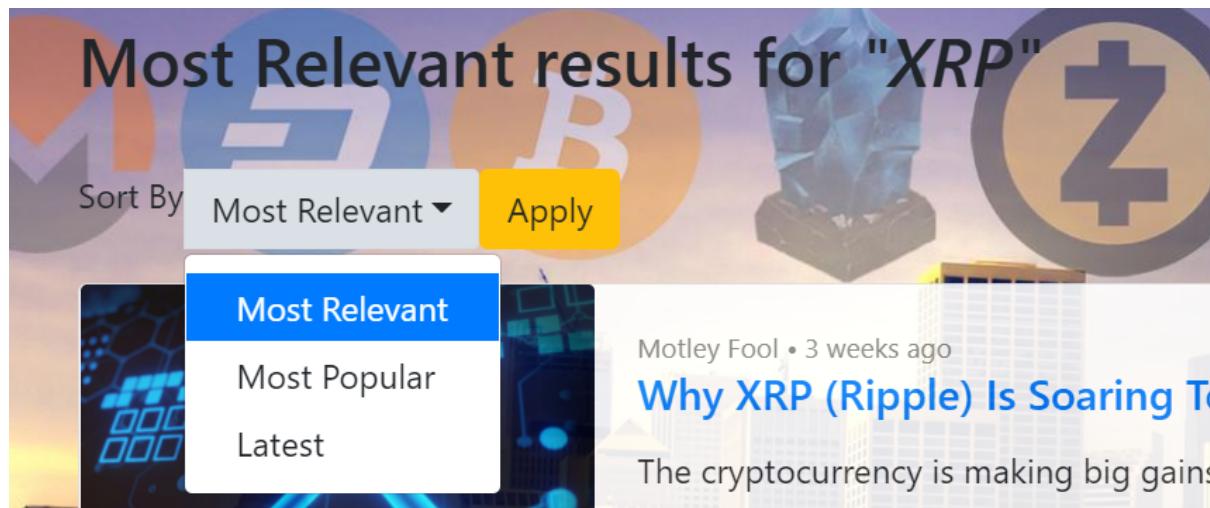
The application will store previous searches by the user. This will allow them to go back to previous searches they have done. When they have chosen what they want to search they will click the search button to bring them to the results page.



After the user clicks search, they will be brought to the search page which will display relevant news based on the coin that they wrote in.

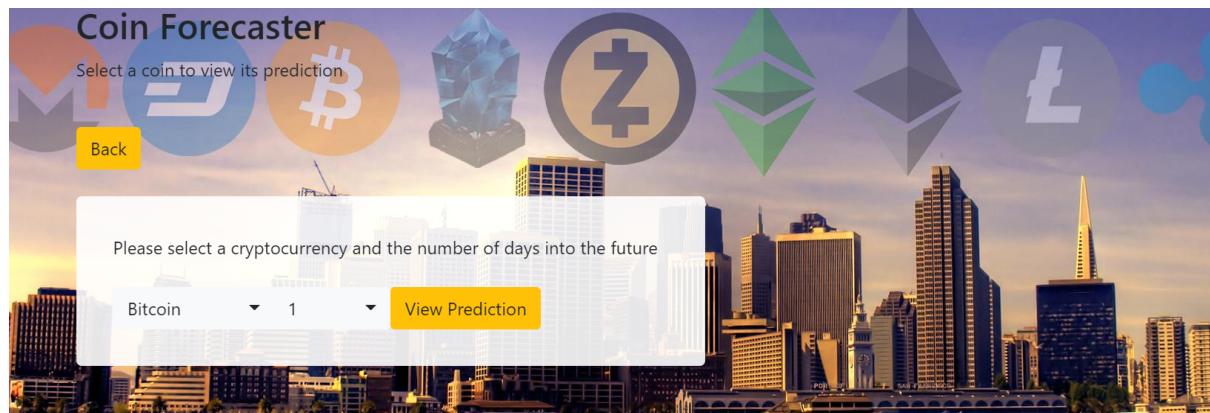


With the use of this drop-down menu, the user can select from the following choices, Latest news, Most relevant or Most popular news. This will then filter the news to how the users want it to be displayed.



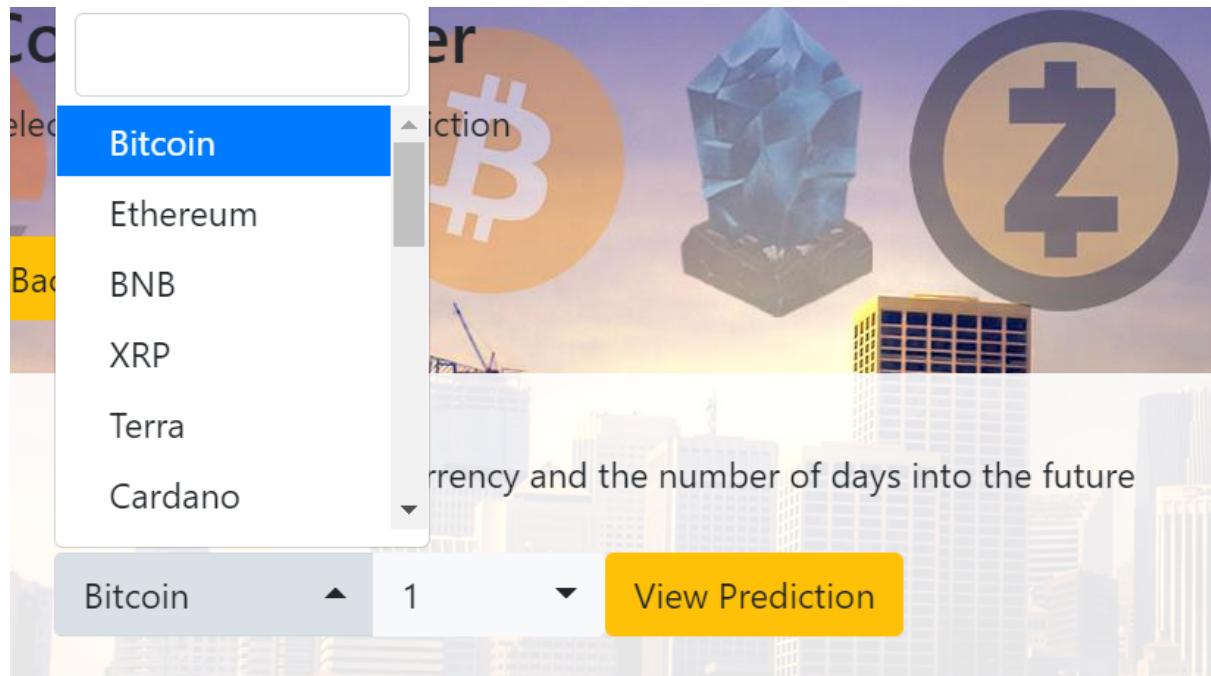
Coin Forecast:

When this button is clicked by the user they will be brought to the page down below. Here they will have a couple of options from which they can choose from.

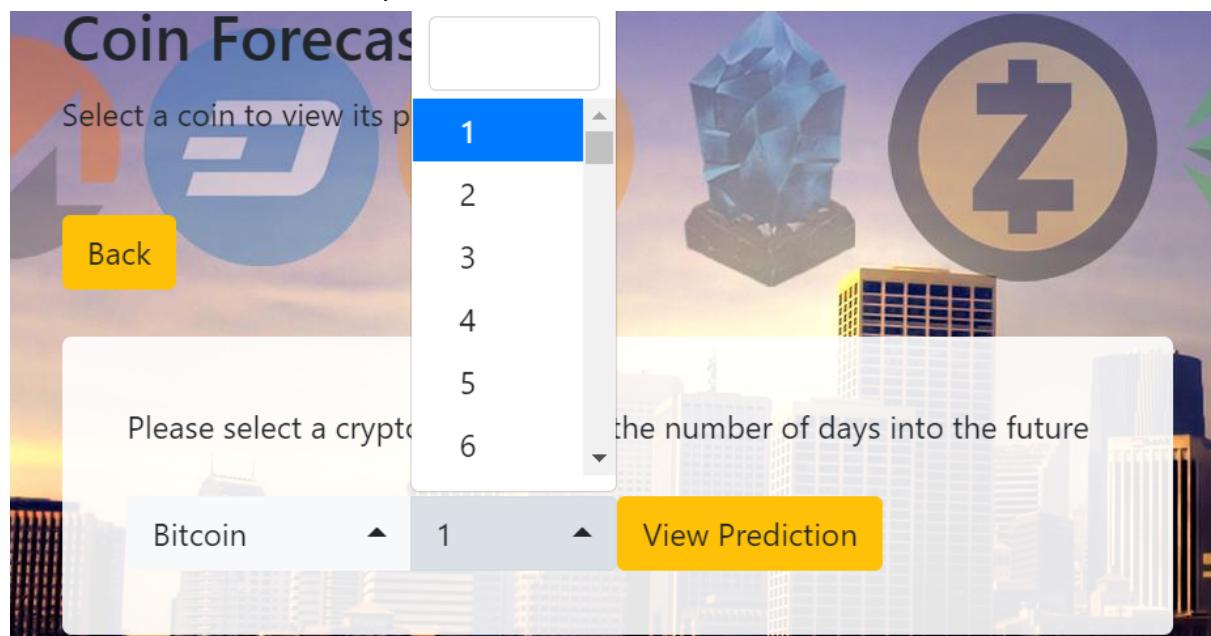


Firstly they will be able to choose the coin on which they want to see our prediction. With the use of a drop-down menu displayed below they can choose from the most popular coins or

search for their own desired coin.



Next, they will have the option of how many days they want to see the predicted data. Also with the use of a drop-down menu, they can choose the number of days in which they want to view. Here is what that drop-down menu looks like:



After they have selected the coin and the number of days, the user then clicks the "View Prediction" button to view the prediction made. This will then bring them to a new page of the web application. This will take a number of seconds to load as the arima model is making the prediction based on what you have selected in the background.



Bitcoin Price Prediction

[Back](#)

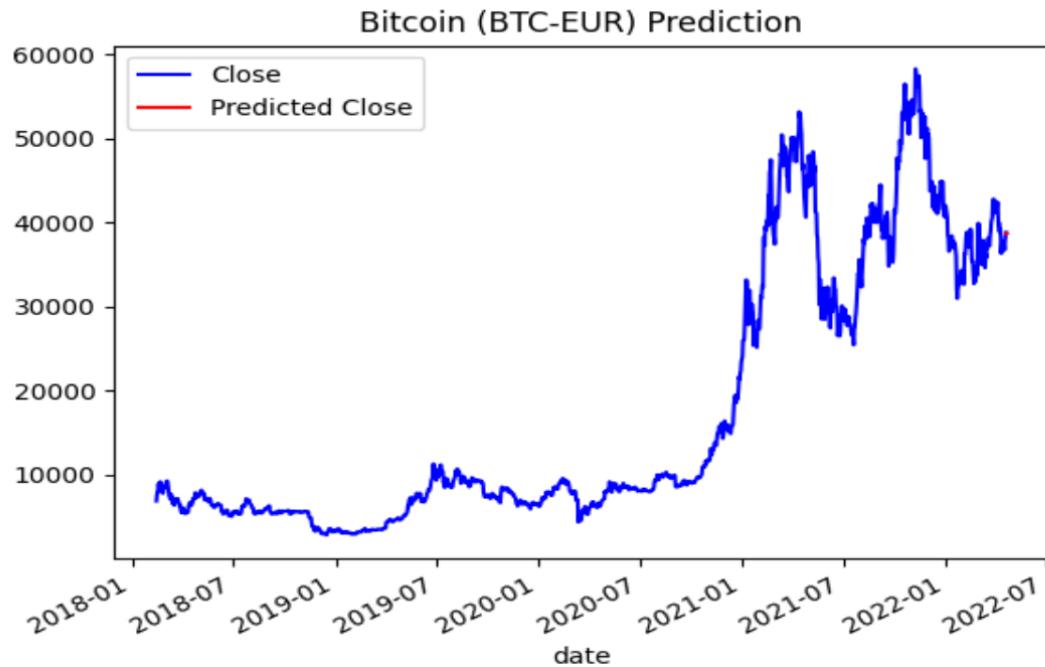
Buy/Sell Signal

Since the **current price** of Bitcoin is **higher** than the **predicted price** (a possible **0.3710% loss**), now might be a good time to **sell** Bitcoin.

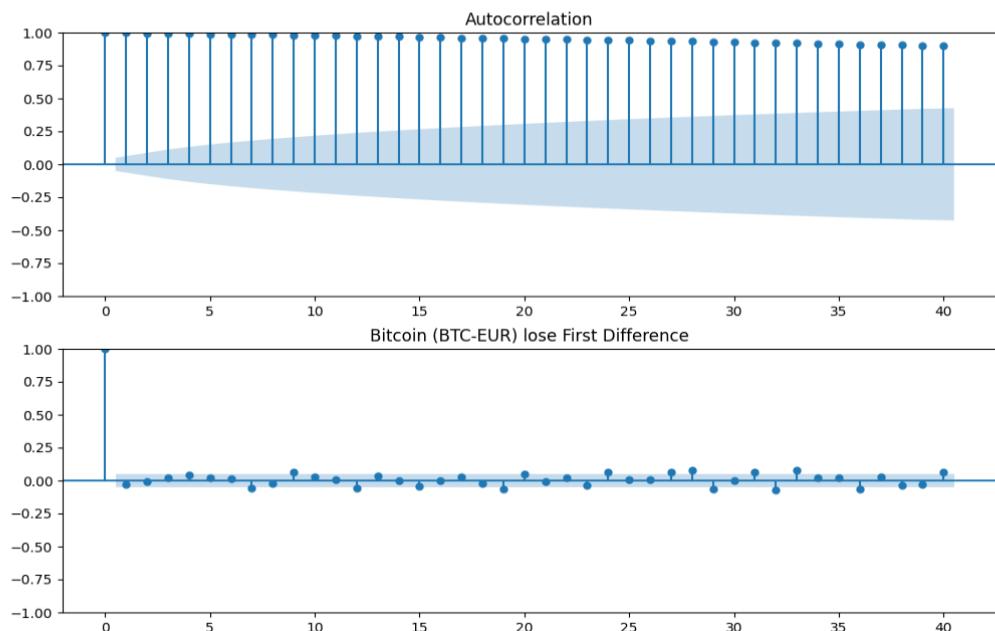
Current price: €38847.9622529002

Predicted price: €38703.853637314154

When brought to the forecast page you will see this data first. This shows the predicted price movement over the amount of days you have selected. For this example the predicted price is lower than the current price. This will indicate that it might be a good time to sell the coin. Also below you will see the current price when selected and the price predicted. When you scroll down on the page then you will see multiple graphs to give a better insight into where the prediction came from.



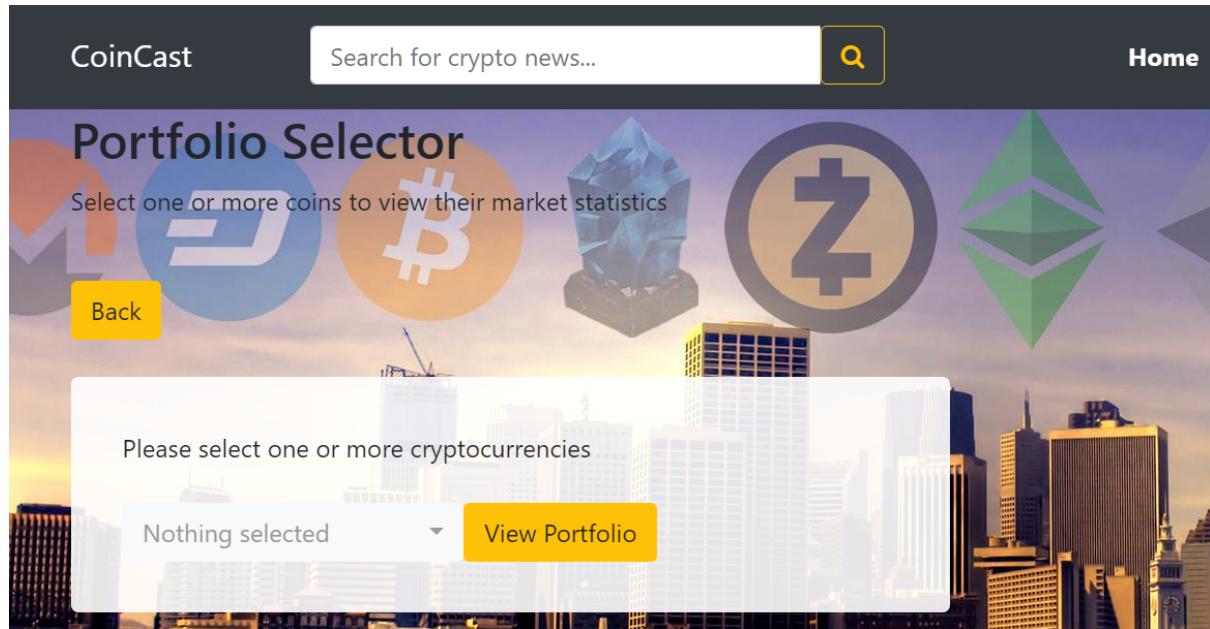
Here is an overview of what the movement of the coins price looks like, in red is the predicted side of the graph.



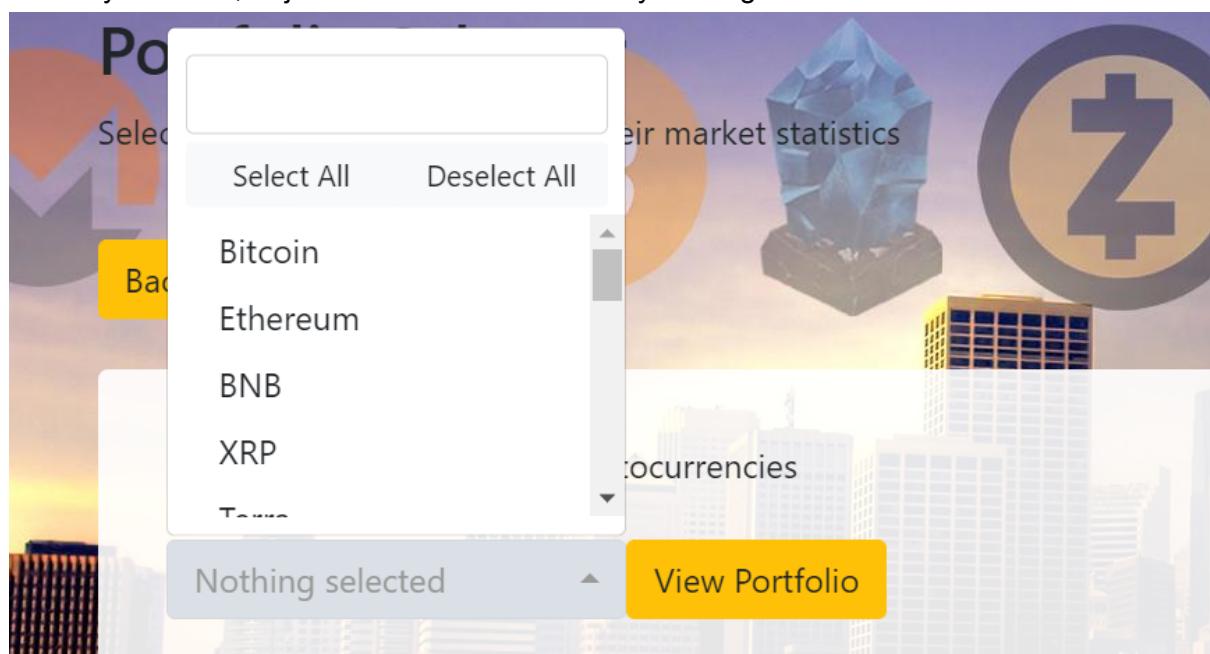
Next you will see the autocorrelation graph. This is the same as a correlation graph but is better used for time series analysis. It is the same as calculating the correlation between two different time series, except autocorrelation uses the same time series twice: once in its original form and once lagged one or more time periods.

Portfolio:

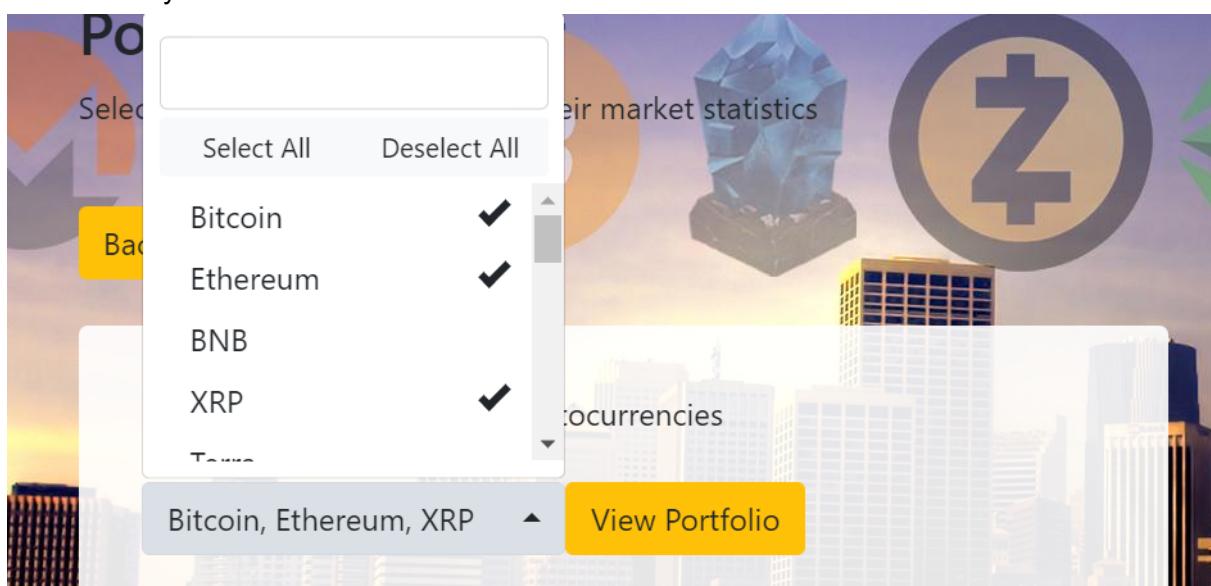
In the extras portion of the navigation bar, there is an option for the user to select a portfolio. When selected they will be brought to a page where they can make a couple of choices about what they want to be displayed on the portfolio page. Here is the page that they will be brought to when they select a portfolio.



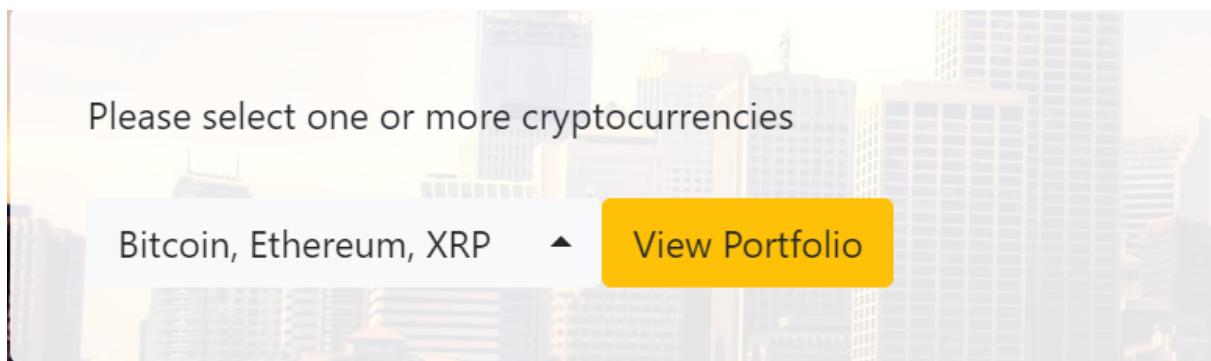
From here the user will be able to choose the coins that they want to add to their portfolio. They have the option to search for a particular coin, select all coins, deselect all coins currently selected, or just choose custom coins by clicking on them.



Here is what will happen when the user clicks on certain coins. A tick will appear beside the coin that they have selected as shown below.



Here is what the search bar looks like after they select the coins they want to add. It will display the coins that they selected. Now the user has to click the “View Portfolio” button to bring them to the portfolio page.





Here you can use all the features provided by the portfolio. You can toggle between the coins you have selected on the right hand side where is highlighted. If you want to edit your portfolio you can click the “Edit Portfolio” button which will bring you back to the selection page. This will save your selections with the use of a session key. Once you close the browser the session will be over and your selected portfolio will return to empty.

Technical Analysis Chart:

In the search bar there is a heading of Technical analysis which will bring you to the page below. This gauge displays a real-time technical analysis overview for your selected timeframe. The summary of Bitcoin to USD is based on the most popular technical indicators, such as Moving Averages, Oscillators and Pivots. You can click on the btcusd title to be brought to the source page with more in depth analysis based around bitcoin.

