Sports Questions Sets Registry Policy

The sports questions sets registry is a list of well formed sets of questions asked on Realitio v3 contract on the Gnosis chain. The questions in a set are expected to be related to each other (for example, questions related to the results of the matches of a tournament) unless otherwise specified and are intended to be used in prediction markets. The purpose of this policy is to identify which sets are safe to use and to provide context to the questions in the set.

Questions Requirements

The set of questions in a submission to this registry must comply with the following guidelines:

1. The events to which the questions relate must be public so that Kleros jurors can judge them accordingly if needed. If the data will not be available or if it is likely to be unreliable, then it must be rejected.
2. Questions must be written in English.
3. The set must contain at most 256 questions.
4. Questions must unambiguously refer to events that will take place in the future. For example: "Who will win the match between Argentina and Brazil?" is invalid, because there is ambiguity regarding which sport and which of the many possible matches between both teams the event is about.
5. Questions that naturally seem to belong to a set but were not included should be rejected. For example, a set made up of the matches of the group phase of the FIFA World Cup is acceptable, but it must be rejected if a match of the group phase is not included in the set. Similarly, a set featuring the playoffs phase while excluding the third place match may not be accepted.
6. Opening timestamps for the Realitio questions must be a time when the answer is expected to be known. If the set is accepted but afterwards an opening timestamp becomes unexpectedly invalid, this is not a reason for removal since Realitio v3 has an "answered too soon" option followed by the chance of reopening the question.
7. Timeouts for the Realitio questions must be 1.5 days.
8. The category of the Realitio questions must be either "sports" or the sport's name/type in English the question refers to, such as "football", "cricket", "chess", "league of legends", "esports", etc.
9. Immoral tournaments or sets of questions are not allowed. For example, death sentence matches, events in which participation is compulsory, etc.
10. Questions must not be misleading, tricky or incorrect. They should also be precise to prevent ambiguity: "FIFA World Cup Qatar 2022" should be used as a tournament name instead of the more vague "World Cup" name.
11. Questions should not be expected to resolve as invalid according to Realitio rules. Note that the question can still be resolved as invalid due to some unexpected event.
12. A set must be rejected if it consists of events which could be clearly manipulated in favor of given bets. The mere speculation that players could potentially be bribed or threatened by bettors is not a valid reason for rejection.

13. Answer options should be as complete as possible. For example, "Who finished first in the group A at the FIFA World Cup Qatar 2022?" should have the 4 playing teams as possible outcomes. If a team is missing or if 2 teams are put together into "Other", the set must be rejected. On the other hand, "1A" and "2B" (instead of enumerating all possible teams) may be acceptable answer options for "Who will win the round of 16 match between 1A and 2B at the FIFA World Cup Qatar 2022 Knockouts?"
14. Duplicate sets are allowed as long as the questions hash is unique in the registry.
15. Dates should be written in one of the following formats:
    a. In letters. It can include the day of the week, ",", and an ordinal suffix for the day number (-st, -nd, -rd, -th).
        i. Accept: "Will Vitalik tweet about football by July 5, 2022?".
        ii. Accept: "Will Vitalik tweet about football by 5 July 2022?".
    b. In the ISO format YYYY-MM-DD.
        i. Accept: "Will Vitalik tweet about football by 2022-07-05?".

Item Fields

- *title* (string): name representing the set of questions. A submission may be rejected if the title does not represent the set unambiguously.
- *hash* (indexed) (bytes32 as text). keccak256 hash of the Realitio's questions IDs in alphabetical order.
- *starting timestamp* (number). The beginning of the market. The timestamp must refer to the beginning of the earliest event in the set of questions.
- JSON file which should have the following fields:
    ○ *description* (Optional, string): short description of what the set of questions is about.
    ○ *formats* <array of question subset formats (object)>: questions subsets and information about how questions relate to each other.
        ■ *type* (string):
            ● "single-elimination": must be used for sets of questions about the outcomes of single-elimination tournaments.
            ● "double-elimination": must be used for sets of questions about the outcomes of double-elimination tournaments.
            ● "gsl": similar to the double-elimination format, but typically used in the group stage of a tournament. The format supports 4 competitors and 5 matches resulting in 2 competitors advancing the group stage.
            ● "groups": must be used for sets of questions that can be organized in 1 or more groups (e.g. round robin tournaments or uncorrelated questions not forming a tournament).
        ■ *questions* <array of Realitio's questions IDs (string)>: questions IDs must follow a specific order depending on the *type* of the format:
            ● *type* "single-elimination". The questions array must be in order, starting with the top, first round bracket and ending with the final match. If there is a third place match, it must be placed after the final match.

- *type* "double-elimination". Same as "single-elimination", but losers bracket questions are appended in order at the end.
- *type* "gsl". Same as "double-elimination".
- *type* "groups". If there is a natural order for the questions, then the questions array should follow it. For example, in Round Robin tournaments, questions must be in order, starting with all the first tournament matches, then the second tournament, etc.
- *extra data* (optional depending on *type*, object):
  - If *type* is "single-elimination", "double-elimination" or "gsl", extra data must be absent or blank.
  - If *type* is "groups", the required fields are:
    - sizes: <array of # of questions in each group>.
    - rounds (optional): # of rounds featured in each group.
    - names (optional): <array of the names of the groups>.

Appendix: Examples

The following examples are mainly meant to illustrate how the JSON file needs to be formatted and what each *type* is about. However, the dummy set of questions used as examples are not necessarily compliant with the policy.

Single Elimination

The Resurgence is an Age of Empires II tournament ([more](#)). A set featuring the playoffs phase would contain 7 questions, one for each match, ordered as follows:

1. Who will win the Bo5 quarterfinal between Yo and saymyname at The Resurgence AOE2 2022?␟\"Yo\",\"saymyname\"␟sports␟en_US
2. Who will win the Bo5 quarterfinal between DauT and ACCM at The Resurgence AOE2 2022?␟\"DauT\",\"ACCM\"␟sports␟en_US
3. Who will win the Bo5 quarterfinal between Villese and miguel at The Resurgence AOE2 2022?␟\"Villese\",\"miguel\"␟sports␟en_US
4. Who will win the Bo5 quarterfinal between JorDan_AoE and Vinchester at The Resurgence AOE2 2022?␟\"JorDan_AoE\",\"Vinchester\"␟sports␟en_US
5. Who will win the Bo7 semifinal (group A & B winners bracket) at The Resurgence AOE2 2022?␟\"Yo\",\"saymyname\",\"DauT\",\"ACCM\"␟sports␟en_US
6. Who will win the Bo7 semifinal (group C & D winners bracket) at The Resurgence AOE2 2022?␟\"Villese\",\"miguel\",\"JorDan_AoE\",\"Vinchester\"␟sports␟en_US
7. Who will win the Bo9 Final at The Resurgence AOE2 2022?␟\"Yo\",\"saymyname\",\"DauT\",\"ACCM\",\"Villese\",\"miguel\",\"JorDan_AoE\", \"Vinchester\"␟sports␟en_US

The set could be titled "The Resurgence Playoffs - AOE2 2022" and the JSON file would look something like this:

```
{
  "description": "Age of Empires II tournament hosted in 2022 by the German player
JorDan_AoE. Playoffs predictions.",
  "formats": [
    {
      "type": "single-elimination",
      "questions": [
        "question 1 ID",
        "question 2 ID",
        "question 3 ID",
        "question 4 ID",
        "question 5 ID",
        "question 6 ID",
        "question 7 ID"
      ],
      "extra data": {}
    }
  ]
}
```

GSL

The Resurgence tournament also has a group phase. In each group, a small GSL-type (double-elimination) tournament is played. The winners of the main and loser's brackets move forward to the playoffs. A set featuring the matches of group B, let's call it "The Resurgence Group B - AOE2 2022", contain 5 questions, one for each match, ordered as follows:

1. Who will win the group B first round match between Vinchester and classicpro at The Resurgence AOE2 2022?␟\"Vinchester\",\"classicpro\"␟sports␟en_US
2. Who will win the group B first round match between Daut and Sitaux at The Resurgence AOE2 2022?␟\"Daut\",\"Sitaux\"␟sports␟en_US
3. Who will win the group B winner's match at The Resurgence AOE2 2022?␟\"Vinchester\",\"classicpro\",\"Daut\",\"Sitaux\"␟sports␟en_US
4. Who will win the group B elimination match (loser's bracket first round) at The Resurgence AOE2 2022?␟\"Vinchester\",\"classicpro\",\"Daut\",\"Sitaux\"␟sports␟en_US
5. Who will win the group B decider match (loser's bracket final) at The Resurgence AOE2 2022?␟\"Vinchester\",\"classicpro\",\"Daut\",\"Sitaux\"␟sports␟en_US

The JSON file would look something like this:

```json
{
  "description": "Age of Empires II tournament hosted in 2022 by the German player
JorDan_AoE. Group B predictions.",
  "formats": [
    {
      "type": "gsl",
      "questions": [
        "question 1 ID",
        "question 2 ID",
        "question 3 ID",
        "question 4 ID",
        "question 5 ID"
      ],
      "extra data": {}
    }
  ]
}
```

Double Elimination

Let's imagine that the previous example was a full double-elimination group phase instead of GSL. The first 5 questions would remain but one or two additional ones featuring the finals would be needed. Note that only one final match would be played if the winner of the main bracket wins, while two matches would be played if the loser's bracket winner wins the first final match. There is more than one valid way of arranging the questions. Here are 2 options:

Option 1:
6. Who will win the group B first final match at The Resurgence AOE2 2022?␟\"Vinchester\",\"classicpro\",\"Daut\",\"Sitaux\"␟sports␟en_US
7. Who will win the group B decider final match at The Resurgence AOE2 2022?␟\"Vinchester\",\"classicpro\",\"Daut\",\"Sitaux\"␟sports␟en_US

Option 2:
6. Who will win the group B final match at The Resurgence AOE2 2022?ǁs\"Vinchester\",\"classicpro\",\"Daut\",\"Sitaux\",\"Vinchester in 2\",\"classicpro in 2\",\"Daut in 2\",\"Sitaux in 2\"ǁssportsǁsen_US

The JSON file for Option 1 would look something like this:

```
{
  "description": "Age of Empires II tournament hosted in 2022 by the German player
JorDan_AoE. Group B predictions.",
  "formats": [
    {
      "type": "double-elimination",
      "questions": [
        "question 1 ID",
        "question 2 ID",
        "question 3 ID",
        "question 4 ID",
        "question 5 ID",
        "question 6 ID",
        "question 7 ID"
      ],
      "extra data": {}
    }
  ]
}
```

Round Robin

The FIFA World Cup 2022 in Qatar has a group phase in which 8 round robin tournaments of 4 teams each are played. Winners and runner-ups from these micro tournaments move forward to the knockouts phase. A set of questions featuring only the group phase of the FIFA World Cup would look something like this:

Group A
1. What will be the result of the match between Qatar and Ecuador at the FIFA World Cup Qatar 2022 group phase?ǁs\"Qatar\",\"Ecuador\",\"Draw\"ǁsfootballǁsen_US
2. What will be the result of the match between Senegal and Netherlands at the FIFA World Cup Qatar 2022 group phase?ǁs\"Senegal\",\"Netherlands\",\"Draw\"ǁsfootballǁsen_US
3. What will be the result of the match between Qatar and Senegal at the FIFA World Cup Qatar 2022 group phase?ǁs\"Qatar\",\"Senegal\",\"Draw\"ǁsfootballǁsen_US
4. What will be the result of the match between Netherlands and Ecuador at the FIFA World Cup Qatar 2022 group phase?ǁs\"Netherlands\",\"Ecuador\",\"Draw\"ǁsfootballǁsen_US
5. What will be the result of the match between Ecuador and Senegal at the FIFA World Cup Qatar 2022 group phase?ǁs\"Ecuador\",\"Senegal\",\"Draw\"ǁsfootballǁsen_US
6. What will be the result of the match between Netherlands and Qatar at the FIFA World Cup Qatar 2022 group phase?ǁs\"Netherlands\",\"Qatar\",\"Draw\"ǁsfootballǁsen_US

And so on for groups B, C, D, E, F, G, H in order. The set could be titled "FIFA World Cup Qatar 2022 - Group Phase" and the JSON file would look something like this:

```json
{
  "description": "International men's football championship contested by the national
teams of the member associations of FIFA. Includes only the group phase matches.",
  "formats": [
    {
      "type": "groups",
      "questions": [
        "question 1 ID",
        "question 2 ID",
        "question 3 ID",
        "question 4 ID",
        "question 5 ID",
        "question 6 ID",
        .
        .
        .
        "question 48 ID"
      ],
      "extra data": {
        "sizes": [6,6,6,6,6,6,6,6],
        "rounds": 3,
        "names": [
          "Group A",
          "Group B",
          "Group C",
          "Group D",
          "Group E",
          "Group F",
          "Group G",
          "Group H"
        ]
      }
    }
  ]
}
```

1-Group Set

A set of questions about Bans to Russian Athletes could look like this:
1. Will Russian tennis players be allowed to play the Wimbledon Grand Slam 2022 tournament?⁕\"Yes\",\"No\"⁕sports⁕en_US
2. Will chess player Sergey Karjakin's 6 months ban be revoked before it completes?⁕\"Yes\",\"No\"⁕sports⁕en_US
3. Will Russian football club teams be unbanned from FIFA and UEFA competitions before 2023?⁕\"Yes\",\"No\"⁕sports⁕en_US
4. Will Formula One revoke the Russian Grand Prix cancellation which was originally scheduled for September 2022?⁕\"Yes\",\"No\"⁕sports⁕en_US

The JSON file would look something like this:

```json
{
  "description": "After the Ukraine invasion, many Russian athletes have been barred
 from competing in sporting events and Russia has been banned as a host to some of them.
 This is a mix of questions regarding said bans.",
  "formats": [
    {
      "type": "groups",
      "questions": [
        "question 1 ID",
        "question 2 ID",
        "question 3 ID",
        "question 4 ID"
      ],
      "extra data": {
        "sizes": [4]
      }
    }
  ]
}
```

Groups

An example of a set of questions that belongs to the *groups* format type but is not a tournament itself would be a mix of miscellaneous questions about the FIFA World Cup Qatar 2022:

Yellow cards
1. Who will get the first yellow card in the Qatar team at the FIFA World Cup Qatar 2022?ᵁₛ<list of the 23 Qatar players>ᵁₛsportsᵁₛen_US
2. Who will get the first yellow card in the Ecuador team at the FIFA World Cup Qatar 2022?ᵁₛ<list of the 23 Ecuador players>ᵁₛsportsᵁₛen_US
3. And so on for the 32 national teams.

First goal
4. Who will score the first goal in the Qatar team at the FIFA World Cup Qatar 2022?ᵁₛ<list of the 23 Qatar players>ᵁₛsportsᵁₛen_US
5. Who will score the first goal in the Ecuador team at the FIFA World Cup Qatar 2022?ᵁₛ<list of the 23 Ecuador players>ᵁₛsportsᵁₛen_US
6. And so on for the 32 national teams.

Top scorer
7. Who will be the top scorer at the FIFA World Cup Qatar 2022?ᵁₛ\"Messi\",\"Neymar\",\"Vinicius Jr.\",\"Mbappe\",\"Harry Kane\",\"Lewandowski\",\"Other\"ᵁₛsportsᵁₛen_US

The JSON file would look something like this:

```json
{
  "description": "",
  "formats": [
    {
      "type": "groups",
      "questions": [
        "question 1 ID",
        "question 2 ID",
```

```
        "question 3 ID",
        "question 4 ID",
        .
        .
        .
        "question 65 ID"
      ],
      "extra data": {
        "sizes": [32, 32, 1],
        "names": [
          "First Yellow Card Holders",
          "First Goal Scorers",
          "Top Scorer"
        ]
      }
    }
  ]
}
```

Complex types - FIFA World Cup 2022 (Round Robin + Single Elimination)

Let's say we now want to create a complex set of questions that contains the entire FIFA World Cup tournament matches. To do so, the questions and *format* object used in the **Round Robin** example still apply here. However, there are 16 matches in the knockouts phase that we must add. The questions related to those matches would look something like this:

49. Who will win the round of 16 match (#49) between 1A and 2B at the FIFA World Cup Qatar 2022 Knockouts?ᵁˢ\"Qatar\",\"Ecuador\",\"Senegal\",\"Netherlands\",\"England\",\"IR Iran\",\"USA\",\"Wales\"ᵁˢfootballᵁˢen_US

50. Who will win the round of 16 match (#50) between 1C and 2D at the FIFA World Cup Qatar 2022 Knockouts?ᵁˢ\"Argentina\",\"Saudi Arabia\",\"Mexico\",\"Poland\",\"France\",\"Denmark\",\"Tunisia\",\"Australia\"ᵁˢfootballᵁˢen_US

And so on. The JSON file would look something like this:

```
{
  "description": "International men's football championship contested by the national teams of the member associations of FIFA.",
  "formats": [
    {
      // The same as the round robin example
    },
    {
      "type": "single-elimination",
      "questions": [
        "question 49 ID",
        "question 50 ID",
        "question 51 ID",
        "question 52 ID",
        .
        .
```

```
            .
          "question 64 ID"
      ],
      "extra data": {}
    }
  ]
}
```

Complex types - Qualifiers (Single Elimination x4)

Let's imagine that for a tennis tournament there are 4 slots that will be filled by players coming from the qualifications. For each slot, a small single-elimination tournament will be played among 4 low ranked players. The questions of this kind of set would look something like this:

Qualifier #1
1. Who will win the match between Player 1 and Player 2 at tennis tournament X qualifiers?ᵘₛ\"Player 1\",\"Player 2\"ᵘₛtennisᵘₛen_US
2. Who will win the match between Player 3 and Player 4 at tennis tournament X qualifiers?ᵘₛ\"Player 3\",\"Player 4\"ᵘₛtennisᵘₛen_US
3. Who will win the decider match for slot #1 at tennis tournament X qualifiers?ᵘₛ\"Player 1\",\"Player 2\",\"Player 3\",\"Player 4\"ᵘₛtennisᵘₛen_US

Qualifier #2
4. Who will win the match between Player 5 and Player 6 at tennis tournament X qualifiers?ᵘₛ\"Player 5\",\"Player 6\"ᵘₛtennisᵘₛen_US
5. Who will win the match between Player 7 and Player 8 at tennis tournament X qualifiers?ᵘₛ\"Player 7\",\"Player 8\"ᵘₛtennisᵘₛen_US
6. Who will win the decider match for slot #2 at tennis tournament X qualifiers?ᵘₛ\"Player 5\",\"Player 6\",\"Player 7\",\"Player 8\"ᵘₛtennisᵘₛen_US

And so on. The JSON file would look something like this:

```
{
  "description": "",
  "formats": [
    {
      "type": "single-elimination",
      "questions": [
        "question 1 ID",
        "question 2 ID",
        "question 3 ID"
      ],
      "extra data": {}
    },
    {
      "type": "single-elimination",
      "questions": [
        "question 4 ID",
        "question 5 ID",
        "question 6 ID"
```

```
        ],
        "extra data": {}
    },
    {
        "type": "single-elimination",
        "questions": [
            "question 7 ID",
            "question 8 ID",
            "question 9 ID"
        ],
        "extra data": {}
    },
    {
        "type": "single-elimination",
        "questions": [
            "question 10 ID",
            "question 11 ID",
            "question 12 ID"
        ],
        "extra data": {}
    }
  ]
}
```